

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By **GEORGE F. TAUBENECK**

Stories of the Week
Definition of the Week
Gags of the Week
Verses of the Week
Add Newspaper Quandries
Last Straws
What Next?

Stories of the Week

Herman Spoehrer, who had a rather bad fire in his home some years back, is ever conscious of the possibility of another disaster. Never does he leave his house without checking every possible source of trouble.

Recently Herman went out for dinner and the evening. After giving The Hired Girl the usual instructions he added:

"If there SHOULD be a fire be SURE to telephone us immediately at the Doochickey residence. Here is their telephone number."

She looked at him musingly. "Doncha want me to call the Fire Department FIRST?"

Tape-recorded interview between applicant and employer:

"Do you provide hospitalization?"

"Blue Cross insurance is deducted from your salary each month."

"Last place I worked they paid for it," the applicant grumped.

"Did they give you a life insurance policy, too?"

"Sure."

"Profit sharing?"

"Yep."

"Three week vacations?"

"Yes, and they had gifts for my birthday, too."

"Why did you leave?"

"The company went bankrupt."

In the final stages of chasing Gen. Rommel out of Africa, a British desert corps subsisted solely on dehydrated foodstuffs. Between the sand, the war, and the dry lunches they were in a bitter mood.

Upon arriving in Cairo they were detailed to guard a museum. All around them were mummies of Egyptian princesses, queens, and courtesans.

"This is the end," mourned a Tommie. "Now they're dehydrating women."

Gushing woman to author:

"I couldn't put your book down until I'd read it through to the beginning."

MacTavish was on his deathbed, surrounded by relatives.

"McDouglas owes me 12 pounds," croaked the dying man.

"His mind is clear right up to the end," admired his wife.

"And I owe MacDonald 20 pounds," he added in a whisper.

Wailed his wife:

"He's delirious now."

Definition of the Week

Collector of Internal Revenue—A man who tells you what to do with your money after you've done something else with it.

Gags of the Week

A fool and his money soon are parted. Smart men can't keep much, either.

Housewife to salesman:

"Try the people next door. I

(Concluded on Page 6, Col. 4)

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THE NEWSPAPER OF THE INDUSTRY

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March 3, 1979

FTC Schedules First Hearings On Dairies' Unfair Fixture Sales Tactics

WASHINGTON, D. C.—First in the series of hearings on the Federal Trade Commission complaint charging a number of major ice cream producers with unfair practices in the sale and servicing of retailers' equipment, will be held May 4 in Jacksonville, Fla.

Tentative dates have been set for other hearings as follows: New York City, June 8; Los Angeles, June 28; San Francisco, June 30;

Portland, Ore., July 5; Seattle, Wash., July 7; Chicago, July 14; St. Louis, July 14; Omaha, July 19; Des Moines, Iowa, July 21. Final hearing might be held in Washington sometime after July 26. However, FTC officials point out that there are generally many factors that result in a change in hearing dates, and that many of these dates may be changed.

Hearings are generally held in (Concluded on Back Page, Col. 2)

Congressman Asks Probe on Why Tax Cuts Aren't Passed on

WASHINGTON, D. C.—The recent cuts in manufacturers' excise tax are generally not being passed on to consumers and Congress ought to look into the situation, Overton Brooks, Democrat representative from Louisiana, suggested to Congress recently.

"I have received many complaints on this subject and have checked on them myself," he said, "and the consumers are not getting the benefit of the tax cuts as Congress intended."

He admitted that he had not checked on appliance prices, but said he thought they should be checked too.

He said that he had checked in drugstores, department stores, and movie theaters, and found that prices on cosmetics, luggage, and other items had not been reduced.

"The movie people freely admit that they have not passed on the reductions," he stated.

"I think that Congress or the attorney general should investigate the situation. Not that there has been any law violation, but when we passed the \$900 million excise tax cut, we were given the impression this would represent a saving to the taxpayer. But the taxpayer is not getting it. Maybe our approach to this tax problem was wrong. If it is, we ought to know about it before we consider any more cuts."

27,000 Persons Expected At Restaurant Show In Chicago May 10 to 14

CHICAGO—Some 27,000 restaurateurs, persons engaged in institutional feeding, and representatives of allied industries are expected to crowd the Navy Pier here between May 10 and 14 to see the 35th annual National Restaurant Exposition.

Of the 450 firms that will display their wares in the north and south wings of the pier during the exposition, about 45 of them will show refrigeration fixtures and equipment for food service establishments. A list of these firms appeared in the April 26 issue of the NEWS.

The show is open to everyone in the industry and there is no admission charge. Hours are from (Concluded on Back Page, Col. 4)

Indoor Comfort Show To Include All-Year Systems

PHILADELPHIA — Year-round air conditioning systems will have a prominent place at the National Indoor Comfort Exposition, sponsored by the Oil-Heat Institute of America, Inc., which will be held May 16-20 at the Commercial Museum in Philadelphia.

A number of exhibits of year-round air conditioning systems are expected to be included among the displays at the Exposition, and there are discussions of comfort cooling systems scheduled in the program of the annual meeting of the institute.

Exposition hours are 1 to 8 p.m. on Sunday, May 16; 1 to 10 p.m. on Monday through Wednesday (May 17 through May 19); and (Concluded on Page 4, Col. 4)

Mulcahey, Decker In New Posts with Heat-X-Changer

W. HARTFORD, Conn.—Cecil Boling, president of Bush Mfg. Co. and its wholly-owned subsidiary, Heat-X-Changer Co., has announced that James A. Mulcahey, director of sales for Bush has assumed similar duties with Heat-X and henceforth



J. A. Mulcahey

will direct sales efforts of both concerns and that Alan Decker has been appointed general manager of Heat-X-Changer Co. (Concluded on Back Page, Col. 2)



Alan Decker

Room Cooler With Screwdriver, Ad DID Say

NEW YORK CITY—Aimed at "teaching in" on the "do-it-yourself" trend, Emerson-New York, Emerson Radio & Phonograph Corp. distributorship here, recently promoted the Emerson room air conditioner as "the first, the only room air conditioner that you can install with just a screwdriver!"

"You can install this Emerson in five simple steps in 30 to 45 minutes," the advertisement said. "End landlord trouble! No unsightly overhang into street; won't mar or alter exterior appearance of building or home."

Prominently pictured was the model E3A1 priced at \$199.95. Smaller boxed pictures and copy described the Emerson "Compact" series for casement windows and the "Custom" series.

After the advertisement's second appearance in a week, the local Better Business Bureau protested (Concluded on Back Page, Col. 5)

Tyler Finishes 10-Yr. Expansion Program

NILES, Mich.—Completion of a ten-year expansion program, designed to increase and speed up service to customers in all parts of the country, has been announced by Robert L. Tyler, president, Tyler Refrigeration Corp. here.

The company also operates plants in Waxahachie, Texas; Cobleskill, N. Y.; and Smyrna, Del.

The expansion program, which got under way at Cobleskill in 1944, Waxahachie in 1945, and Smyrna in 1953, included the installation of new machinery, erection of new buildings, and the addition of other manufacturing facilities.

On April 15 of this year, the enlarged Waxahachie plant began manufacturing a complete line of (Concluded on Page 4, Col. 5)

Trane Cuts Prices on 2 Types Of Air Conditioning Equipment

LA CROSSE, Wis.—The Trane Co. announced at a two-day sales meeting here that prices of its "Climate Changer" and "Uni-Trane" air conditioning equipment have been reduced 10%.

At the same time, the firm announced new, larger models of "CentraVac" refrigeration equipment. The new units, in models up to 300 hp. and up to 400 tons' capacity, are already in production.

During the meeting, sales managers toured Trane's new million-dollar research laboratory.

IN THIS ISSUE

How To Pick Sound Financing Program	10	Registers, Tests Show	21
Furrier Installs Storage Vault's Refrigeration System In Window For Customers To See	12	Why Not Change Parts of Hermetic Systems?	22
Radio, TV Station Installs 57 Tons of Air Conditioning	13	Slants on Service	15
Load Calculations	18	What's New	16
Floor Outlets Give Better Air Distribution Than High		Refrigeration Problems—How The Moisture Got In	20
		Patents	26
		Government Contracts	26

Congress Hears Testimony on 'Safety Latches'

Senate Hearings Open on Abandoned Icebox Bills; Safety Drive Data Ready

WASHINGTON, D. C.—A Senate sub-committee hearing on two bills that would require inside latches on domestic refrigeration equipment resulted in almost solid opposition from industry spokesmen and from the U. S. Department of Commerce.

Senator William Purtell, Connecticut Republican and chairman of the business and consumers interests sub-committee of the interstate commerce committee, however, apparently gained the impression, after listening to testimony, that some of the opposition developed out of the cost of providing inside latches, and of resulting higher prices for the products involved.

He questioned whether or not refrigerator manufacturers would employ any safety device unless forced to do so by Federal law. He advised manufacturers not to wait for the perfect latch, but to use the best available.

Arrayed against the measures were spokesmen for the Air-Conditioning and Refrigeration Institute, the Refrigeration Service Engineers Society, the National Electrical Manufacturers Association, and the Refrigeration Equipment Wholesalers Association. They urged that the problem of refrigerator "death traps" could better be dealt with through education and local legislation.

Favoring Federal legislation (Concluded on Back Page, Col. 3)

NEMA and Safety Council Offer Material to Field

NEW YORK CITY—A "discarded refrigerator and freezer safety drive" to be spearheaded during the week of June 6-12, has been announced by the household refrigerator and farm and home freezer sections of the National Electrical Manufacturers Association.

NEMA also announced that it already has secured the cooperation of the National Safety Council in this continuing program and has gained the facilities and experience of that organization in contacting other organizations.

Through the National Safety (Concluded on Back Page, Col. 1)

4 Shelvador Prices Raised, 1 Reduced

CINCINNATI — Restoration of the suggested list prices prevailing before the excise tax cut on four Crosley Shelvador refrigerators and a \$1.24 reduction in the price of a fifth were announced recently by Parker H. Ericksen, Crosley-Bendix general sales manager.

The models affected and their old and new prices are as follows:

Model	Old Price	New Price
LF 7	\$162.54	\$169.95
SF 7	191.10	189.95
SF 95	239.52	240.95
SF 105	287.35	299.95
CAF 125	487.75	499.95

Increased production costs was given as the reason for boosting the price of the SF 95 and CAF 125. The SF 105 has a new 5-qt. beverage bar in the door, and the LF 7 has been given color styling. Ericksen indicated that no further price changes on other refrigerator models or of ranges or freezers are contemplated at this time.

READING

THE NAME TO
REMEMBER FOR

QUALITY COPPER TUBING

FOR REFRIGERATION
& AIR CONDITIONING
EQUIPMENT



READING TUBE CORPORATION

EMPIRE STATE BUILDING
NEW YORK 1, N. Y.
WORKS: READING, PA.

Hussmann Opens New, Bigger Building In N. Y.

ST. LOUIS—Hussmann Refrigeration, Inc. has announced the opening of new and larger facilities for its New York branch office operations.

A new modern building, located at 48-31 Van Dam Ave., Long Island City, New York, was recently completed. The expanded facilities will provide approximately 12,000 sq. ft. of office space, conference rooms, private offices for sales, store planning rooms, display area, and storage quarters.

"The larger building was necessitated to meet the increased demands of the food merchant in the New York area for assistance in store planning, remodeling, and merchandising help," the company said.

"A complete line of food store refrigeration and equipment will be on display at all times."

W. O. Crabtree, Jr. is branch manager of the New York office.

Kelvinator Names Bowen

ATLANTA—Bowen Refrigeration Supplies, Inc. here has been named a distributor of Kelvinator commercial condensing units. Bowen operates branches at Tampa, Jacksonville, and Miami, Fla.; Houston, Texas, and Charlotte, N. C.

New Universal Prices Reflect Excise Tax Cut

LIMA, Ohio—New suggested list prices reflecting the recent cut in manufacturer's excise taxes have been announced by Universal Major elec Appliances, Inc. here. The schedule is as follows:

RANGES (f.o.b. Baltimore)		
Model	New Price	Old Price
6814	\$164.95	\$169.95
UR-4	194.95	199.95
UR-4P	224.95	229.95
UR-5	294.95	299.95
UR-6W	314.95	319.95
DISHWASHERS (f.o.b. Cleveland)		
956 (Sink & D.W.)	429.05	449.95
976	324.62	339.95
993 (Customized)	305.76	319.95
IRONERS (f.o.b. Algonquin, Ill.)		
WM-4514	62.95	65.90
WM-4522	171.95	179.95
WM-4525	199.95	209.95
WM-4521	123.95	129.95
REFRIGERATORS (f.o.b. Lima, Ohio)		
14-CDA	489.95	499.95
107-CDA	389.95	399.95
105-CDA	341.95	349.95
95-CDA	293.95	299.95
95-CS	263.95	269.95
87-CU	195.50	199.95
FREEZERS (f.o.b. Lima, Ohio)		
UF-8D	341.95	349.95
UF-12D	439.95	449.95
UF-17D	556.95	569.95

To Cool Atlanta Building

ATLANTA—Palmer, Inc. has announced plans for modernization and air conditioning of the 101 Marietta St. building, 12-story office building here.

If H-Bomb Comes...

Refrigerated Blood Serum Stockpiled In Key Cities

BOCA RATON, Fla.—As an encouraging note in the current publicity over the destructiveness of the H-bomb, warehousemen point out they have been storing blood serum under refrigeration for some time in strategically located cities across the nation.

This has been done free of charge for the Federal Civil Defense Administration by members of the National Association of Refrigerated Warehouses, they said at the group's 63rd annual meeting here.

The serum, which is in the form of blood groupings and blood typings, is being stored in cooler rooms with temperatures ranging from 35° to 60°.

Nash-Kelvinator Net Profit Drops Sharply In 6 Months

DETROIT—Nash-Kelvinator Corp. earned a net profit of \$204,709, or 4 cents per share, in the six months ended March 31, 1954, the first half of the current fiscal year, George W. Mason, president, reported. This compared with net profit of \$11,708,327, or \$2.69 per share, in the like period a year ago.

The corporation had a net loss of \$750,183, or 17 cents per share, in the quarter ended March 31, 1954, against net profit of \$6,185,952, or \$1.42 per share, in the corresponding period a year ago.

Milwaukee Carbonator Distributes Fischman Line

PHILADELPHIA—Appointment of the Milwaukee Carbonator Co., Milwaukee, as exclusive franchise distributor of Fischman soda fountains and luncheonette equipment in that area was announced recently by the Fischman Co. here.

C. M. Lambeth, principal of the Milwaukee Carbonator organization, was formerly associated with Liquid Carbonic Corp.

NCRSA Enlists Aid of Distributors In FTC Fight Against Dairies

PHILADELPHIA—More than 1,000 distributors of commercial refrigeration equipment have been requested by the National Commercial Refrigerator Sales Association to cooperate with and actively assist the Federal Trade Commission in its cases against eight major ice companies and their subsidiaries.

"This is a very real opportunity for our industry to constructively support the efforts of the FTC to correct unfair competition," the association said in its appeal to distributors.

NCRSA revealed that in March, 1951, it "began its fight to eliminate the competitive practices of dairies and ice cream companies that supply refrigeration equipment at cost, or less, to their dealers as an inducement to handle the dairies' products."

"Based on details of transactions harmful to its members, the association filed an extensive petition with the commission, requesting an investigation to determine whether such practices violated the Clayton act," NCRSA said.

Similar contentions of "violation" were later filed by other industry groups, the association added.

"Before investigations conducted by the FTC in several sections of the country were made, interviews were sought with NCRSA's secretarial staff and plans made for coordinating special appeals to members for assistance when the field investigators visited their territories to seek evidence," NCRSA said.

The association also announced it will coordinate and submit to FTC all additional evidence supplied by members and others.

To Build Air-Cooled Plant

WINNSBORO, S. C.—Fairfield Mfg. Co. will erect a one-story air conditioned factory building here. Carolina Engineering Co. of Florence is drawing the plans for the new structure.

When he's LINED UP..... but not SIGNED UP...



Be ready to sign him up with COMMERCIAL CREDIT PLAN FINANCING

MOST of your prospects need their working capital and usual lines of credit for current operations. To make sure they buy now... and from YOU... include COMMERCIAL CREDIT PLAN financing in your recommendations. More than 300 offices to serve you nationally. When can we tell you our story? Phone our office in your city or write or wire COMMERCIAL CREDIT CORP., 14 Light St., Baltimore 2, Maryland.

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A service offered through subsidiaries of Commercial Credit Company, Baltimore... Capital and Surplus over \$145,000,000... offices in principal cities of the United States and Canada.



WANTED Exclusive DISTRIBUTORS AND DEALERS

TO SELL THE WORLD'S FINEST
ENGINEERED ICEMAKER

WE of Polar Chips Manufacturing Co. AND dealers over Texas and the Southwest have what we consider to be the best ice-making machine obtainable.

Producing ice 1/2 inch in diameter and 3/4 inch in length, the Polar Chips Icemaker is so simple in design that it consists of no moving parts other than the motor compressor unit and 2 solenoid valves. No moving parts under refrigeration — no scrapers, cutters or other harvesting parts to get out of order. No timers to reset. Polar Chips Icemaker is available in 200, 400, 600 and 1200 pounds-per-day capacities. A small, compact machine, yet includes its own ice storage bins.

Ice machine sales are big business and dealer-profit is great. Get the facts today. Dealership information will be furnished on request.

Supply information on coupon below.



Polar Chips Mfg. Co., 3501 Biway St., Fort Worth, Texas

Please send me information about dealer territories for POLAR CHIPS Icemaker.

Name


Street

Company name

City State

Repeated by popular dealer demand!

FIRST ANNOUNCEMENT
LIFE
MAY 3RD—FULL COLOR



Want this Kelvinator "Holiday House" FREE or \$25,000 in cash?

Enter Kelvinator's 2nd Annual "Homemaker's Holiday" Contest today! You can win "Holiday House" or any one of 25 FREE Kelvinator appliances, \$100 cash prizes—FREE!

By Joan Adams, Artistic Director for Better Living

Here's your chance to win that home you've dreamed of! Win it FREE, with no strings attached. Home is built for you! or a FREE \$1000 lot of your own choosing. It's a new design, created especially for Kelvinator. You can win it just by writing "I sample words, as less, Or you can win any one of 25 free Kelvinator appliances, or \$100 cash prize. It's so easy to enter Kelvinator's "Home-

maker's Holiday" Contest. You don't have to buy a thing. Just visit your Kelvinator Dealer. See a demonstration of any 1954 Kelvinator 40th Anniversary appliance. Get your free entry blank. Then fill in 25 simple words—the less, why you would like to own a new Kelvinator product. Your entry must be made by June 4th, 1954. Your entry must be made by June 4th, 1954. Your entry must be made by June 4th, 1954.

ENTRIES FOR WINNING

Entries for winning will be accepted from June 1 to June 4, 1954. Entries must be made by June 4, 1954. Entries must be made by June 4, 1954.

\$75,000 TOTAL PRIZES
WIN! WIN! WIN! WIN!

NOW—your 25-word entry may be a winner! Get in on these fabulous prizes!

Get in today... in Kelvinator's "Homemaker's Holiday" Contest! So easy to enter!

Your Kelvinator Dealer will supply you with Entry Blanks—Free!

See all of these Kelvinator 40th Anniversary Appliances—Enter Early!

"Holiday House" \$25,000 First Prize
(Including \$1,000 appliances for lot)

5 \$1,000 Second Prizes

Plus

75 Kelvinator Home Appliances
100 \$100 Cash Awards
1,000 \$10 Cash Awards

1,181 Prizes in All



You'll always win with Kelvinator's work-savers for Better Living!

Kelvinator "Homemaker's Holiday" Contest

\$75,000 in Prizes!

**"HOLIDAY HOUSE" or
\$25,000 First Prize
5 \$1,000 Second Prizes**

PLUS

**75 Kelvinator Home Appliances
100 \$100 Cash Awards • 1,000 \$10 Cash Awards
1,181 PRIZES IN ALL**

Now, Kelvinator launches the 2nd Annual "Homemaker's Holiday" Contest with new appeals, more and bigger prizes, certain to produce even heavier traffic and sales.

The theme of the contest is the Kelvinator "Holiday House" with all the exciting new living concepts that are of such tremendous interest to modern homemakers.

Every entrant must visit the Kelvinator dealer. Every entrant will indicate the major appliance she would like to own. What an opportunity to demonstrate and sell!

But Kelvinator has not stopped there in turning traffic into sales.

During the contest period from May 1st to the 4th of July, there will be special "Homemaker's Holiday" store promotions built around products with proven sales appeal. These will be down to earth, hard-selling retail activities featuring the "Bonus Values" that typify every 1954 Kelvinator appliance!

Yes you can bank on it—Kelvinator Dealers everywhere are going to cash-in on their 2nd Annual "Homemaker's Holiday" Contest!

Kelvinator

Division of American Motors Corporation, Detroit 32, Michigan

**THE MOST VALUABLE FRANCHISE
IN THE APPLIANCE INDUSTRY**

ELECTRIC REFRIGERATORS • RANGES • HOME FREEZERS • WATER HEATERS • KITCHEN CABINETS AND SINKS • WASHERS • DRYERS
IRONERS • GARBAGE DISPOSERS • WATER COOLERS • ROOM AIR CONDITIONERS • DEHUMIDIFIERS • COMMERCIAL REFRIGERATION

Joseph Raufeisen Named Brunner Chief Engineer

UTICA, N. Y.—Appointment of Joseph Raufeisen as chief engineer of The Brunner Mfg. Co. was announced recently by A. G. Zumbrun, Sr., Brunner president.



J. Raufeisen

Raufeisen comes to Brunner directly from Wescott and Mapes, consulting engineers located in New Haven, Conn., where he has been employed for over three years as manager of the entire mechanical department.

Raufeisen has over 30 years of design and application experience on air and refrigeration compressors and complete units incorporating these types of compressors.

In design and application work he has developed prominent and well-known present day refrigeration and air conditioning units. These range in size from the smallest to the largest commercial units in excess of 200 tons of refrigeration, both open and close coupled types. Raufeisen's work on air compressor outfits has included models up to well over 100 hp.

His work as an engineer has brought him into close contact

with application and job design. Raufeisen has wide experience in the contracting field and has a background in all ranges of modern refrigeration, air conditioning, and air compressor applications.

A native of Switzerland, Raufeisen came to the United States after graduating from the Swiss Technology College in Mechanical Engineering. His first American connection in the late 1920's was with McClellan and Junkersfeld who were an engineer consulting firm in New York, later absorbed by the present Stone and Webster. While with this firm he was assistant engineer. He also worked for the Henry Doherty and Co., the founders of Cities Service Petroleum products, and headed the Oil Refining Dept.

In 1932, Raufeisen returned to Switzerland and formed his own consulting engineering firm employing from 25 to 55 on his staff. In 1950 after the war Raufeisen returned to the United States and joined Wescott and Mapes.

Zumbrun added that the Brunner board was giving approval on several new engineering developments in Utica and before the year was ended new products in the Brunner Utica line would be available to all Brunner wholesalers and customers.

Raufeisen is a member of the American Society of Refrigeration Engineers and was a founder of the Swiss Engineering Society where he has been elected an honorary life member.

6 Air Force Hospitals To Be Air Conditioned

DALLAS—U. S. Senator Lyndon B. Johnson has been informed by the Air Force that it has authorized air conditioning to be installed in the base hospitals at six more Texas military airfields.

According to telegraphic advices from Washington, D. C., they are Carswell Air Force Base, Fort Worth; Foster Field, Victoria; Harlingen Air Force Base; Lackland Air Force Base, San Antonio; Laredo Air Force Base; and Laughlin Air Force Base, Del Rio.

Air conditioning had previously been authorized for the base hospitals at Wolters Air Force Base, Mineral Wells, and Abilene Air Force Base.

Atlanta Dealer Group Seeks 'Truth In Advertising' Law

ATLANTA—A "truth in advertising" law for Georgia and strengthening of the state's fair trade act are being advocated by the Franchised Appliance Dealers Association of Atlanta.

E. B. Cohn, president of the group, said that Georgia is one of four states that does not have a "truth in advertising" law. He also declared that the dealers want the fair trade act strengthened so that the damaged party could collect damages and attorney's fees.

Indoor Comfort--

(Concluded from Page 1, Col. 3)

1 to 6 p.m. on Thursday, May 20. Most of the "general interest" sessions of the convention will be held at the Commercial Museum also.

Principal talk on the cooling phase of air conditioning to be given at the convention will come at the Thursday morning, May 20 General Session in the ballroom of the Commercial Museum with T. H. Smoot of Primor Products talking on "Sales Opportunities in Residential Cooling."

In the Tuesday morning general session C. W. Nessell will discuss "Tips on Installing and Servicing Central Home Cooling Systems." In the round table discussion on Tuesday afternoon on service and installation Andrew Ward of Worthington Corp.'s Air Conditioning Div. will be the discussion leader on residential cooling systems.

At the Wednesday afternoon session on "Dealer Management" the discussion leader on year-round air conditioning will be Jack Campbell of Elliott-Lewis Co.

Following are some of the firms in the year-round air conditioning field who will exhibit at the Indoor Comfort Exposition:

List of Exhibitors From the Industry

Company	Booth No.
Arrow-Hart & Hegeman Electric Co.	855
Automatic Devices Co., Inc.	662
Bacharach Industrial Instrument Co.	469
Bell & Gossett Co.	721
Burnham Corp.	459-61
Chrysler Corp., Airtemp Div.	909-11-12-13
Commercial Filters Corp.	3
Davis Engineering Corp.	759
Delavan Mfg. Co.	7
Delco Appliances Div., General Motors Corp.	M
Delco Products Div., General Motors Corp.	905
Detroit Controls Corp.	267
Eureka Williams Co., Div. of Henney Motor Co., Inc.	562
Friez Instrument Div., Bendix Aviation Corp.	253
General Electric Co., Apparatus Sales Div.	115-17-18
General Electric Co., Air Conditioning Div.	554
General Filters, Inc.	663
Heil Co.	501-3-4-5
Iron Fireman Mfg. Co.	359-61
Lake Chemical Co.	363
Mercoind Corp.	524
Minneapolis-Honeywell Regulator Co.	11-13-15
Olsen Mfg. Co., The C. A.	160-2
Patten Co., J. V.	251
Penn Controls, Inc.	724
Perfex Corp.	4 & 5
Quiet-Heat Mfg. Corp.	919
R. C. S. Tool Sales Corp.	869
Rochester Mfg. Co., Inc.	372
Smith Corp., A.O.	317
Sunbeam Air Conditioned Div., American Radiator & Standard Sanitary Corp.	0
Taco Heaters, Inc.	274-5
Thatcher Furnace Co.	367-9
Torrington Mfg. Co.	467
Tuthill Pump Co.	364
Walton Laboratories	769
White-Rodgers Electric Co.	304-5
Worthington Corp.	263

Madden Brass Moves To Aurora Plant June 1

CHICAGO—Madden Brass Products Co. here recently announced that it will occupy new quarters at 948 Oliver St., Aurora, Ill. on June 1.

The company said that the new facilities will provide more efficient operation and product control and will enable the company to make faster deliveries.

Tyler Expansion--

(Concluded from Page 1, Col. 4)

new Tyler open, self-service "Sales-Cases," and other commercial refrigerators, as well as other Tyler products made in the past.

Effective the same date, the Cobleskill plant started manufacture of a complete line of Tyler reach-in refrigerators, and other refrigerated food equipment. This plant will also manufacture a new line of Tyler stainless steel reach-ins, to be announced shortly.

Shipments will automatically be made to those accounts best served by Tyler's Waxahachie and Cobleskill plants.

Tyler stated that enlarged production capacity will tend to equalize the production load between Tyler's four plants, and result in faster service, and, in many instances, reduced freight rates.

The new line of Tyler open Sales-Cases, which was introduced in February, features lowered height of the case front from the customary 42 in. to 36 in., and elimination of all front glass. Also, the new line is narrower while maintaining the same cubic foot capacity; any single case can be easily moved through a 42-in. door.

The Tyler commercial refrigeration line now includes latest models of open, self-service refrigerated Sales-Cases for meat, dairy products, frozen food, produce; all types of conventional service display cases; "Rolling-Cold" packaging conveyors; sectional storage freezers; walk-in coolers and freezers; reach-in, reach-thru, and slide-door refrigerators; adjustable metal shelving; beverage coolers and beer dispensers; Tyler condensing units.

In addition, Tyler manufactures home freezers, and Wilson milk coolers, the latter produced in the Smyrna, Del. plant.

NAME PLATES

COMPRESSOR NO. 2

Specialty manufactured for air conditioning and refrigeration requirements. Use these low-cost 2 1/2" x 3/4" METAL name plates for labeling and identifying your installations. Over 100 standard refrigeration and air conditioning wordings available for immediate shipment. No minimum order required. FREE samples, quotations.

SETON NAME PLATE Co. Dept. A
394 Central Ave., New Haven, Conn.

YOU CAN SELL MORE AIR CONDITIONERS

Get your salesmen moving into a strong sales approach that builds desire, knocks over objections, and leads conclusively to a close. You can sell your way to the top of the market when you use the AIR CONDITIONING SALES PORTFOLIO. This direct, forceful, and honest sales approach keeps your salesmen on the right track. Comes in full color bound in a business-like, genuine leather briefcase. Each kit only \$17.50

NATIONAL SALES INSTITUTE
2932 Wilshire Boulevard
Los Angeles 5, California

Redmond MicroMotors

One of largest stocks in the world!

FACTORY DISTRIBUTORS
CYCLO-FREEZ CORP.
MARVIN L. "FERGIE" FERGESTAD
P.O. Box #6, Dept. A, Mpls. 16, Minn.
MOhawk 9-6794

CANADA

REPRESENTATION AVAILABLE

Advertiser has 25 years' experience in serving and selling the Canadian refrigeration and air conditioning industry and will consider representing established reputable U. S. manufacturers who are either not now represented or who wish better representation. Only noncompeting lines will be considered, and all replies will be treated in absolute confidence. The companies we now represent know of this advertisement. Reply Box 4551, Air Conditioning & Refrigeration News.

for Hermetic Compressors

new

two-piece
WATER VALVE

Here's that famous Penn Series 246 Water Valve . . . the water valve that stays on the job much longer than any other . . . in a brand new role! It retains all its efficient performance features in a new, two-piece construction.

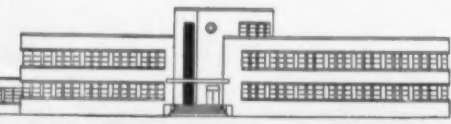
The growing use of hermetic compressors from 1 1/2 to 5 hp. for water-cooled air conditioning created a water valve installation problem. To solve this, Penn came up with the Series 246 two-piece water valve. Now . . . more and more manufacturers are using the Penn water valve bellows and capillary on each unit. The pressure connector is sweated into the hermetic compressor. Then, in the field, if the equipment is city water cooled, the Penn valve body assembly is required to complete the job. Available in 3/8", 1/2" and 3/4" sizes.

Remember . . . your best buy in water valves is Penn. Ask your wholesaler or write Penn Controls, Inc., Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, N. Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ontario.

— SAVES TIME . . . MONEY —

Penn two-piece water valve has internal stop in power element. This feature prevents possible damage to bellows, makes assembly to valve body extremely easy and permits installation or replacement of water valve body without cutting into the refrigerant system.

Penn



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES

Typhoon Acquires New Building for Expansion

BROOKLYN—Acquisition of additional factory space near its present building here which will more than double the amount of floor space for manufacturing was announced recently by Typhoon Air Conditioning Co., Inc.

At the same time, the company reported that its volume is up 60% to date.

The new building will allow enough space for a 1,000-ft. assembly line and will provide expansion facilities for the future, the company said.

James F. Dailey, chairman of the board of Typhoon, celebrated his 40th anniversary with the company on April 15 as he signed his name to the purchase of the new building.

Also present for the closing were: E. L. Garfield, Typhoon's treasurer, with 39 years with the company to his credit; Don V. Petrone, Typhoon's president, and Murray M. Kabill, secretary and chief engineer, who have been with Typhoon about 20 years.

The additional space became imperative, according to Mark E. Mooney, Typhoon vice president in charge of sales, when it became obvious early this year that business optimism had not suffered materially from "scare" talk.

"Our volume is ahead 60% so far this year," he said, "and we expect this to be a record year."

Several reasons were advanced for keeping Typhoon's expansion within the Brooklyn area, in the face of the recent tendency of air conditioning manufacturers to move factory facilities south and west.

The principal reason given by Petrone is the increasing number of Typhoon shipments by water route to Gulf ports and to the West Coast.

"In addition," said Petrone, "the New York area provides a high concentration of skilled labor, proximity to several important sources of supply, and easy access to the local air conditioning market, which, despite the claims of Texans, still offers the greatest potential for air conditioning sales of any area in the country."

Specializing in packaged air conditioning equipment, Typhoon manufactures commercial units from 2 to 25 hp., residential units for year-round use, and heat pumps. The company also carries a line of Typhoon room air conditioners in 1/3, 1/2, 3/4, and 1-hp. sizes.

Warren Barr of Chicago Named Airtemp Distributor

CHICAGO—Warren Barr Supply Co. here has announced its appointment as Chicago area distributor for the complete line of Chrysler-Airtemp heating equipment and also air and water-cooled air conditioning units for residential use.

As warehousing distributor, the firm will maintain complete inventories to service the heating contractors of the greater Chicago area, the announcement said.

ROTARY SEAL

Replacement Units

Available in a wide size range for Commercial, Semi-Commercial, Air Conditioning and Home Refrigerators.

EASY TO INSTALL • ECONOMICAL



AT ALL

LEADING JOBBERS

2026 NORTH LARRABEE STREET
CHICAGO 14, ILLINOIS, U.S.A.

Directors Approve Merger Of Davison Chemical, Grace

NEW YORK CITY—A merger of Davison Chemical Co. into the W. R. Grace Co. has been approved by the directors of the two companies and recommended to their stockholders.

The merger is to be accomplished through an exchange of stock. Grace stockholders meet May 12, Davison holders May 13.

Worthington Net Up

NEW YORK CITY—Net income of Worthington Corp. and its domestic subsidiaries for the three months ended March 31, 1954, after provision of \$1,931,139 for Federal income taxes, amounted to \$1,782,590, equivalent to \$1.54 per share on the 1,082,207 shares of common stock outstanding.

For the corresponding period of last year, net income amounted to \$1,190,852, or \$1.02 per share.

ARI Plans Air Conditioning Meetings In Phila. May 17-19

WASHINGTON, D. C.—The Air Conditioning and Refrigeration Institute has scheduled three meetings in Philadelphia the week of May 17.

The Year-Round Residential Air Conditioning Engineering committee meets May 17. The Year-Round Residential Air Conditioning Section meets May 18. The Self-Contained Air Conditioner Section meets May 19.

All meetings start at 9:30 a.m. and will be held at the Benjamin Franklin hotel.

Distributes Amana In Dallas

DALLAS—The Porter Burgess Co. here has been appointed as distributor of Amana freezers and room air conditioners, according to E. L. Hinchliff, sales manager of Amana Refrigeration, Inc.

Sees Cooling as \$Billion Industry Within Decade

HOLLAND, Mich.—Air conditioning will become a billion-dollar-a-year business within the next decade, a General Electric Co. executive predicted recently.

Speaking at ground-breaking ceremonies for a new G-E hermetic motor plant here, Ab Martin, general manager of the company's Hermetic Motor Dept., explained that the new plant is necessary to provide hermetic motor parts for the rapidly growing needs of the refrigeration and air conditioning industries.

"This new plant," he said, "is evidence of General Electric's faith in one of the fastest growing industries in our economy."

Manufacturing at the plant is scheduled to begin in 1955, after which the department's headquarters will be transferred to the new site, Martin said.

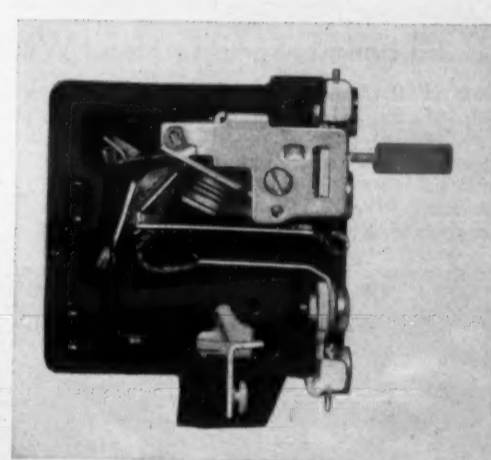
Prisoners To Find It Cooler In the Cooler

OLNEY, Ill.—America's most comfortable prisoners this summer will probably be the inmates of Olney's city jail. They'll be cooler in the cooler.

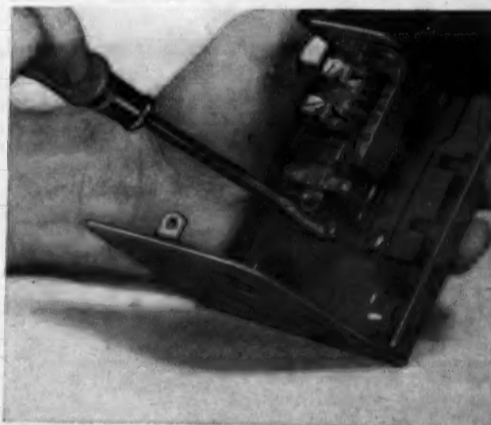
Contracts have been placed for completely air conditioning the new municipal building, which will house the mayor's office, police department, courtroom, water-works, and a three-cell jail.

The one-story brick building, now under construction, will be heated in winter and cooled in summer by a 5-ton Servel gas-operated air conditioner.

Mayor M. D. Borah recently visited the Servel plant in Evansville, Ind., where the all-year gas air conditioner is made. "After a comfortable night in our air conditioned jail," he told Servel officials, "our prisoners won't get so hot under the collar when fined."



OVERLOAD PROTECTION is provided with bimetallic, "quick-trip" overload relays.



INSTALLATION SIMPLIFIED by ample wiring space, knockouts and mounting holes.

Designed specifically for air conditioning and refrigeration

New General Electric Magnetic Starter is 53% Smaller Easier to Install

The features you asked for are packed into the new, smaller G-E starter . . . the starter that is designed specifically for air conditioning and refrigeration.

53% SMALLER in cubic volume, the new, lighter-weight starter permits you to make your equipment more compact. Because the new starter is tailored to your needs, it fits in and complements your modern equipment.

POSITIVE PROTECTION. General Electric's field-proven overload relay is available for hermetically sealed motors. The "quick-trip" relay (another G-E first) allows your motor to deliver maximum power without premature tripping, yet protects against overloaded and stalled conditions.

EASY TO INSTALL. Only two mounting screws are needed. They can be pre-started to prevent unnecessary fumbling after the starter is set in place. Together with larger panhead screws and ample wiring space, the new G-E starter will save you time and money on installation.

MORE ECONOMICAL. Many features make this new starter your most economical buy: Quicker, easier installation; smaller size (reduced 53%) and positive protection for your motors. This new, streamlined starter is designed specifically for your industry.

For more information, contact nearest G-E Apparatus Sales Office, or write Sect. 730-53, General Electric Co., Schenectady 5, N. Y. Ask for Bulletin GEA-6064.



FOUR PRODUCTION TESTS are made on each starter to assure quality and performance.

GENERAL  ELECTRIC



Mobile Air Conditioner In Production

FIRST SHIPMENT of new type room air conditioner introduced recently by Unarco heating and cooling division of Union Asbestos and Rubber Co. is supervised by Chester S. Stackpole, (right) general sales manager. Air conditioner, a mobile unit, does not require permanent installation and can be plugged into an electric outlet. Retail price is listed as \$349.95.

Frank Is 3rd Langsenkamp To Head Wholesaling Firm

INDIANAPOLIS — Frank S. Langsenkamp has been elected president and treasurer of the F. H. Langsenkamp Co. here. John T. Rocap was named secretary.

Langsenkamp represents the third generation of his family to

serve as president of the refrigeration equipment and supplies wholesaling firm. It was founded in 1868 by William Langsenkamp, whose son, F. H. Langsenkamp, was president from 1908 until his death in 1953.

Stoesser Made Vice Pres. Of American-Standard Div.

PITTSBURGH—Raymond A. Stoesser has been appointed vice president and general manager of manufacturing of the Plumbing and Radiator Heating Div. of American Radiator & Standard Sanitary Corp., Joseph A. Grazier, president, announced recently.

Prior to the appointment Stoesser was serving as general manager of manufacturing for the division. He is in charge of the production of plumbing fixtures, kitchen products, and heating and air conditioning equipment in the division's 16 plants.

Stoesser began his association with American-Standard in 1924, and has since been engaged in a variety of technical and manufacturing work. He was supervisor of the corporation's European factories from 1944 until 1953.

Van Duyse, Representative Of Universal Cooler, Dies

MONTREAL, Que., Can. — George F. Van Duyse, 55, widely known in the refrigeration industry in Canada for many years, died recently at his home here.

Van Duyse was born in Belgium and came to Canada in 1920. For the past 16 years he was associated with Universal Cooler Co. of Brantford, Ont.

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE
F. TAUBENECK

(Concluded from Page 1, Col. 1)
use their vacuum cleaner, and it's terrible."

Immigration is the sincerest form of flattery.—HENRY CHAMBERLIN.

You don't have to be in a key position to open the door of opportunity.—Biblical Recorder.

"James Roosevelt proved that mother ain't the only traveller in the family."—WALTER WINCHELL.

Verses of the Week

Age is a quality of mind,
If you have left your dreams behind,
If love is cold,
If you no longer look ahead
If your ambitious fires are dead—
Then you are old.
But if from life you take the best,
And, if in life you keep the jest,
If love you hold,
No matter how the years go by,
No matter how the birthdays fly—
You are not old.

If they should ask, "What manner of man is he?"
Search out his friends to find the master key.

From each acquaintance comes a vital part
Of everything that dwells within the heart.

As steel to steel, so is thy friend to thee.
Your wisdom whetted, if there wisdom be;
And if no wisdom occupies the mind,
You still are richly blest, if friends are kind.

For they will seize upon the tiny spark
That is your soul, and lift you from the dark.
And he who finds a light into his way,
Will never fear the night, nor dread the day.
—CHRISTINE GRANT CURLESS.

Add Newspaper Quandries

"I used to look forward to the Milwaukee airport I loved him so. He every Sunday night."—Detroit Times.

"Opportunity to own a perma-

nent business handling women only."—Harrisburg (Pa.) Evening News.

John C. Prewett, who has been working for Arthur Guinnip for several weeks, was arrested yesterday by Sheriff Turner for telling lies. The man was about to leave town when the Sheriff caught him and lodged him in jail.—Marshall Herald.

Last Straws

Farmer Jones was eating a sandwich when a hen went past him like a shot. A rooster pursued her.

Suddenly the male chicken quit the chase, and stopped to eat crumbs which had fallen from the farmer's sandwich.

"I hope I never get that hungry," groused the farmer.

Rev. Candeed maintained a personal notebook labeled:

"Complaints of parishioners against other people."

When one constituent belabored another he countered:

"Here's my complaint book. I'll write in here your charges—and you can sign them."

Reverend Candeed kept this special diary 30 years, opened it many times, but never wrote a line in it.

We suppose that when these machines with brains finally take over the world, they'll make as many improvements in us as we made in them.—Banking.

What Next?

The canister vacuum cleaner is a versatile machine. It'll clean your house or curry your horse. But can it be used to snare the elusive night crawler?

The engineering department of the Eureka Williams Corp., Bloomington, Ill., recently received this inquiry:

"Will it hurt my new Eureka if my husband uses it after rain storms to pick up night crawlers off the lawn for his fishing bait? We would also like to know if it will hurt the night crawlers."

Eureka engineers haven't consulted any night crawlers but they're inclined to think this idea is for the birds.

From another would-be lady inventor, the firm recently received the suggestion that it add a "bug-sucker" to its set of vacuum cleaner tools. What the lady has in mind is some attachment that will fasten to the glass shade on a ceiling light and suck away the insects that banged themselves to death against the light bulb.

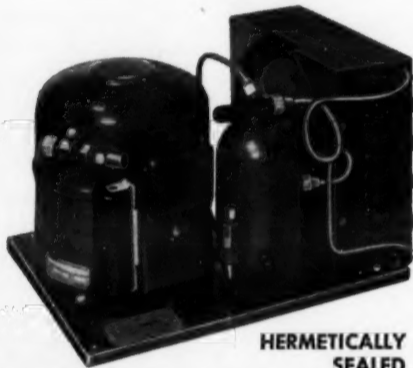
And what's yours?

Servel

SUPERMETIC

OFFERS YOU A LINE
THAT Protects
Your Profits ...
AND Safeguards
Goodwill!

CONCENTRATED ON QUALITY — comprising standard and capillary tube models in all the most popular sizes — featuring a full range of super-performance power units — incorporating the newest advances in condensing unit engineering — unequalled for compactness and cost-saving efficiency — that's the SERVEL SUPERMETIC line! There's no surer way to keep customers sold than to make SUPERMETIC a "must" specification for every possible application! There's no line backed with a more liberal warranty than Servel's low-cost, factory-extended protection! There's no better time than RIGHT NOW to get all the facts ... mail the coupon below TODAY!



HERMETICALLY
SEALED

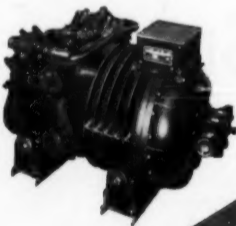
Air-Cooled and Water-Cooled Electric Condensing Units in All Popular Sizes, 1/4 HP through 1 HP.



SUPERMETIC
CAPILLARY TUBE

Electric Condensing Units in 1/4, 1/2 and 1/3 HP sizes for manufacturers of small refrigeration fixtures.

SUPERMETIC
ELECTRIC
POWER UNITS
For a Wide Range
of Applications in
Sizes from 1/4 HP
through 7 1/2 HP



MAIL COUPON NOW
FOR FREE
SUPERMETIC CATALOG

SERVEL, INC. COMMERCIAL REFRIGERATION DIVISION
EVANSVILLE 20, INDIANA

Send free SUPERMETIC catalog and trade information to:

NAME.....

FIRM NAME.....

ADDRESS.....

CITY.....ZONE.....STATE.....

TRUE BOTTLE BEVERAGE COOLERS

Feature a Complete Line that will
MAKE CUSTOMERS BUY!

The TRUE line includes baked enamel or stainless steel models ... in sizes for cooling from 13 to 50 cases of 12 oz. bottles.

Available with 3 different types of refrigeration

- BLOWER COIL
- ICE CUBE MAKER
- GRAVITY COIL

Whether you buy one cooler or a hundred, it's worth your time to get complete information from TRUE. Details are yours for the asking.

TRUE MANUFACTURING COMPANY
2905 PINE STREET
ST. LOUIS 3, MISSOURI

MODEL T-626

MODEL T-836 MODEL TS-623 MODEL T-416



AIR CONDITIONERS

Specifications on the Hotpoint line of room air conditioners presented here arrived too late for inclusion in our special Air Conditioning issue of April 19, when similar specifications on air conditioning equipment marketed by 108 companies was published.



Hotpoint

Hotpoint Co.,
Div. of General Electric Co.,
5600 W. Taylor St., Chicago, Ill.

Model No.	Size (In Hp.)	Cycle and Voltage	Dimensions (In.)—Width Depth Height	Proj. In Room	Pump Out (Yes or No)	Suggested List Price
104EY50	1/2	60-115	23 1/2 28 1/2 13 1/2	9 1/2	Yes	\$319.95
104EY50	1/2	60-115	23 1/2 28 1/2 13 1/2	9 1/2	Yes	\$329.95
104EY50	1/2	60-115	27 1/2 32 15 1/2	10 1/2	Yes	\$369.95
104EY75	3/4	60-208/230	27 1/2 32 15 1/2	10 1/2	Yes	\$389.95
104EY75	3/4	60-115	27 1/2 32 15 1/2	10 1/2	Yes	\$399.95
124EY75	3/4	60-208/230	27 1/2 32 15 1/2	10 1/2	Yes	\$399.95
124EY75	3/4	60-230	27 1/2 32 15 1/2	10 1/2	Yes	\$449.95

McIntosh Heads Sales Of Remington Room Coolers In Northeast

AUBURN, N. Y.—Remington Corp., manufacturer of room air conditioners, has appointed Edward McIntosh as northeastern regional sales manager, it was announced here by M. L. Judd, general sales manager.

McIntosh will supervise Remington sales of window and console coolers in the territories of New York, New Jersey, and New England, including metropolitan New York, and will make his headquarters in Remington's New York office.

For the past three years McIntosh has been supervisor of air conditioning sales for Philco Distributors, Inc., covering dealers located in the New York metropolitan area.

He has been actively engaged in the air conditioning field since 1945 when he joined Consolidated Conditioning Corp. as sales engineer.

Remington's district sales managers, Fred Weber, New York-New Jersey, and Louis White, New England, continue their present duties under McIntosh's supervision.

Deering Ad Serves as Guide For Casement Room Cooler

NEW YORK CITY—A newspaper advertisement the identical length and width of the Deering casement window air conditioner was used recently by Gross Distributors, Inc. here to promote local sales.

The reader was requested to cut out the advertisement on the dotted line and use it to measure her own casement window for a room cooler.

The advertisement emphasized that \$60 to \$100 could be saved on installation cost alone by eliminating modifications to the window and that the unit also fit standard size windows.

Stone Co., Salt Lake City, Is Deepfreeze Distributor

NORTH CHICAGO, Ill.—Carlos W. Stone Co., Salt Lake City, has been named distributor for Deepfreeze Appliance Div., Motor Products Corp., according to L. R. Walker, the manufacturer's manager of field sales.

The new distributor's territory embraces all of Utah, all of Idaho except for 10 northern counties, four counties of Nevada (Elko, Eureka, Lincoln, and White Pine), five counties of Wyoming (Lincoln, Sublette, Sweetwater, Teton, and Uinta), and Malheur county, Ore.

Briant G. Badger and Ralph O. Bradley are co-owners and Carlos W. Stone is sales manager.

Chicago Electric Assn. Sponsors It

Room Air Conditioner Show Opens May 11; 50 Models, Educational Displays Planned

CHICAGO—The 1954 air conditioning promotion sponsored by the Electric Association of Chicago will get under way on May 11 with the opening of the Room Air Conditioner Show.

This exhibition will be held at the Marquette building of Commonwealth Edison Co., 140 S. Dearborn St., until July 16. More than 50 units representing 17 brands of window coolers, console models, built-in units, central cooling systems, and dehumidifiers will be displayed.

A "clearing house" for information about air conditioners will be established at the show. Typical questions to be answered at this show will be: "What kind of air conditioner should I have?"; "What sizes are available?"; "How much does it cost?"; "When should I use a central system?"; "Can I use it year-round?"; "Will it filter out dirt?"; "Will it relieve hay fever?"

In addition to the units themselves, interesting visual examples of how air conditioners trap dirt and remove excess moisture from the air will be featured.

In conjunction with the air conditioning promotion, a "Weather

Prophet" contest will be conducted. A total of \$1,500 in cash prizes will be awarded to those who correctly predict how hot and how humid it will be in Chicago on July 4, 1954.

The 17 brands of air conditioning equipment and the participating distributors are:

Amana—Main Line Distributors, Inc.; Admiral—Appliance Distributors, Inc.; Carrier—Temperature Equipment Corp.; Chrysler Airtemp—Electric Supply Co.; Crosley—The Harry Alter Co.; Dearborn—Dearborn Stove Co.; Fresh'nd Aire—Dobkin Electric Supply Co.; Frigidaire—Frigidaire Sales Corp.

General Electric—R. Cooper, Jr., Inc.; Gibson—Gibson Refrigerator Co.; Kelvinator—Kelvinator Div., Nash-Kelvinator Sales Corp.; Mitchell—Graybar Electric Co., Inc.; Philco—Philco Distributors, Inc.; Shana-Air—Enterprise Heat & Power Co.; Vornado—The Sampson Co.; Westinghouse—Westinghouse Electric Supply Co.; York—Murphy & Miller, Inc.

The show is open to the public and there is no admission charge. Hours are 8:30 a.m. to 5:30 p.m., Monday through Friday each week.



Seen from All Angles

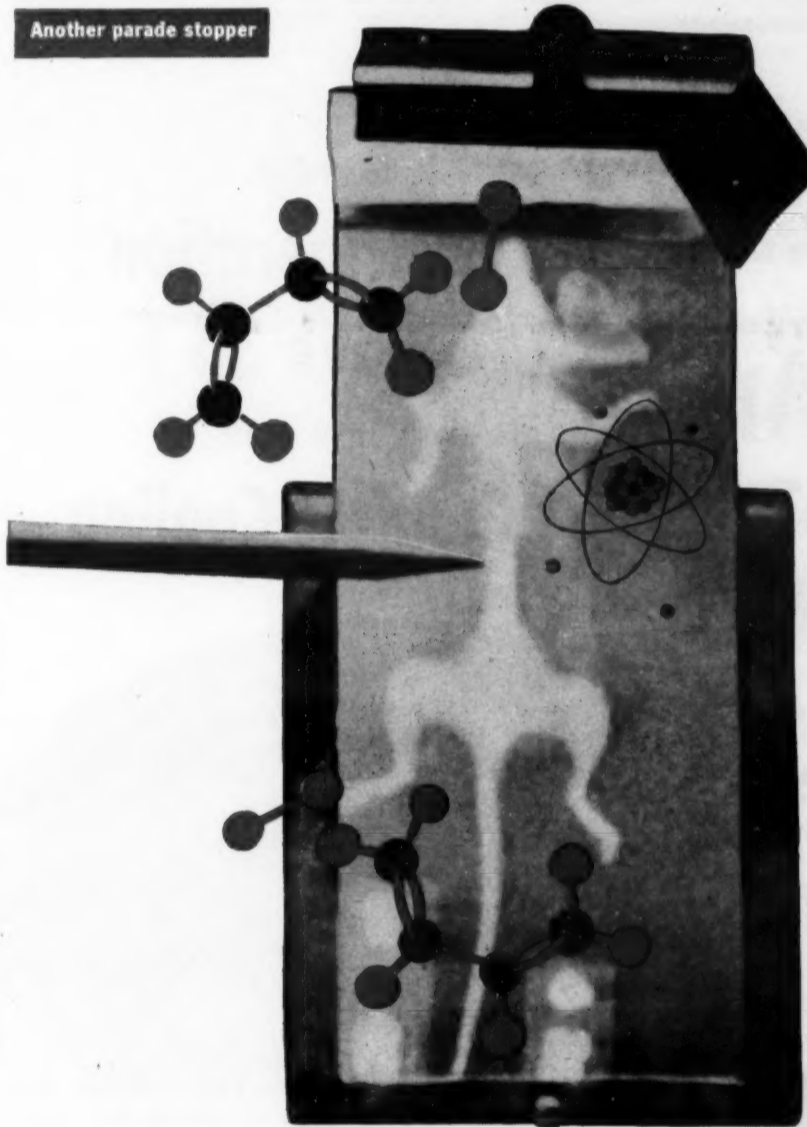
A NEW TURN in point-of-sale displays for room air conditioners is taken with this new mobile offered by the United States Air Conditioning Corp. for its 1954 line. An eye-catcher wherever it is hung, the slowly and constantly revolving mobile tells the UsAirco room cooler story from every angle. Printed in five colors, it is out of the way when hung, yet easily seen and read. It is furnished completely assembled and ready to hang.

Copy stresses equipment features, including exclusive Fiberglas construction, push-button control panel, minimum projection into room, and quiet operation.

NEW PRODUCTS?

Turn to "What's New" Page for useful information on new products. Use Key No. for fastest service.

Another parade stopper



SLOW! ATOMS AT WORK

And over 9,000,000 people stopped to read a thrilling story.

This X-ray view of a mouse illustrated an interview with the top medical men of the Atomic Energy Commission. It appeared in PARADE, the Sunday Picture Magazine, and it stopped 8 in every 10 readers.

Week after week, up and down every street in 45 key markets, more than 13 million readers stop and read vital stories like this. They make PARADE the best read publication in print, according to independent surveys.

Result: PARADE gives its advertisers more than twice as many readers per dollar of ad cost as any of the Big Three weekday magazines. And PARADE's impact on Sunday makes sales all week long.

PARADE... The Sunday Magazine section of 45 fine newspapers in 45 major markets... with more than 13,000,000 constant readers.



WHY? TIME CONTROLS for AIR CONDITIONERS



...THE PUBLIC DEMANDS IT!

- Automatic 'ON' and 'OFF' WHEN DESIRED. Adds Comfort and Economy.
- Automatic Skip Certain Days Weekly. A Must for Professional People.

Model No. 1919GSK
24 Hour Plug-in
Up to 1 H.P.
Selective Days

A complete 24 Hour DAILY REPEAT Portable-Plug-in Control. Simple to connect.

The Accessory You Have Been Looking For.

So Little Added Cost for so Much Added Comfort. Make Real Boosters for YOUR LINE.



WRITE FOR FULL DETAILS IN OUR FREE BULLETIN! NO. 354

ACT NOW! DISTRIBUTORS

Do Not Depend on Summer Deliveries. No Promises for July and August. Scheduled Shipments Acceptable.

TORK CLOCK CO.

MOUNT VERNON, NEW YORK

Elect Walsh Sales V. P. Of Yorktowne Machine

YORK, Pa.—Edward R. Walsh, Jr. has been elected vice president in charge of sales of Yorktowne Machine Co., Inc., manufacturer of Yorktowne "Water Savers," according to the board of directors.



E. R. Walsh, Jr.

Walsh will direct the setting up of a distribution organization for this new type of evaporative condenser which is now being manufactured in 2, 3, and 5-hp. sizes for use with water-cooled refrigeration and air conditioning equipment.

Walsh has had a long experience in the air conditioning and refrigeration field, having been associated with York Corp. for 15 years in various sales and market research capacities, according to the announcement.

He has also been associated with V. C. Patterson & Associates, Inc., consulting engineers specializing in refrigeration and air conditioning; York-Shipley, Inc.; Herman Nelson Corp.; and Gilbert & Barker Mfg. Co., a division of Standard Oil of New Jersey, as sales manager of the Oil Burner Div.

York Corp. Sales for Six Months Show 40% Increase

YORK, Pa.—York Corp. recorded a 40% increase in sales for the first six months of the current fiscal year, ended March 31, compared with the similar period in the previous fiscal year.

Sales for the first six months totaled \$44,449,243, a record for the period.

This compares with \$31,407,889 for the first six months of the last fiscal year.

Net earnings were \$1,155,015, or \$1 per common share after provision for preferred, compared with \$670,334, or 52 cents last year.

Bellevue-Stratford Hotel Gets \$2 Million In Air Conditioning

PHILADELPHIA—Kerby Saunders, Inc., a New York City firm, has been awarded a \$2,000,000 contract for air conditioning the Bellevue-Stratford, Bennett E. Tousley, vice president and general manager of the hotel, announced.

Air conditioning of restaurants, meeting rooms, and exhibit areas is expected to be completed by the end of June. Air conditioning of hotel rooms should be finished by the end of this year, the golden anniversary of the hotel, Tousley said.

Solar Energy for Heating Homes Seen Within Decade

SAN FRANCISCO—The long-talked-about use of solar energy to heat homes and commercial buildings will become a definite reality within the next decade, a heating authority predicted recently.

John E. Haines, first vice president of the American Society of Heating and Ventilating Engineers, said that by 1963 the "heat from the sun will take its place as one of our common fuels."

He told the society's Golden Gate chapter in San Francisco that basic data to aid in the design of solar energy heating systems was emerging from research being conducted by the society in cooperation with the University of Minnesota.

"The use of solar energy as a source of heat for homes has received wide publicity for many years," said Haines, who is a vice president of Minneapolis-Honeywell Regulator Co. "However, until recent research sponsored by the ASHVE in cooperation with the University of Minnesota provided basic design data, engineers could not design solar energy heating systems with confidence."

The coming use of solar energy will be accompanied by tremendous strides in air conditioning and "by tremendous technological advances in every direction," he said.

Air Conditioning Installations In Baltimore Area

Classifications	During 1953 No.	Hp.	During 1952 No.	Hp.	Total as of 12-31-53 No.	Hp.
Residential:	120	444	19	113	230	949
Commercial:						
Apartments	4	206	..	..	10	231
Banks	45	836	23	398	173	3,455
Barber and beauty shops	16	79	11	55	109	612
Broadcasting studios	1	6	2	20	14	361
Clubs	9	137	4	90	15	241
Funeral homes	7	87	6	50	76	656
Hospitals	3	155	9	312	51	2,126
Hotels	3	42	2	25	19	508
Offices	176	2,979	169	3,100	1,091	20,845
Public buildings	4	815	2	130	27	2,549
Recreational	4	60	8	103	75	1,795
Restaurants and taverns	218	1,731	132	1,157	1,066	11,223
Stores, department	8	873	5	171	112	11,309
Stores, drug	37	281	44	365	282	2,810
Stores, miscellaneous	184	2,482	139	2,003	967	12,375
Theaters	..	12	..	..	147	8,920
Other commercial	38	2,065	11	387	141	6,443
Industrial:						
Candy manufacturing	..	..	..	..	10	160
Drugs and chemical manufacturing	2	154	..	..	14	424
Printing and lithographing	2	7	2	38	22	1,664
Textile manufacturing	..	7	5	273	12	725
Metal working	1	30	1	4	20	401
Other industrial	1	277	14	350	119	4,579
Total Contract Installations	882	13,707	608	9,144	4,810	96,032
Self-contained room cooler unit sales	9,194	7,559	5,736	3,510	25,807	19,384
Grand Total		21,266		12,654		115,416

1953 Air Conditioning Installations In Baltimore Area Hit 21,266 Horsepower

BALTIMORE, Md.—Indicative of the boom in air conditioning, data just released on installations in this area during 1953 and 1952 show remarkable advances, especially by room coolers and residential systems.

Installation data compiled by Consolidated Gas, Electric Light and Power Co. of Baltimore show that there were 882 contract installations in 1953 totaling 13,707 hp.

In 1952 there were 608 such installations totaling 9,144 hp.

As of Dec. 31, 1953 there was a grand total of 4,810 contract air conditioning installations of 96,032 hp. in the Baltimore area.

Room cooler sales in 1953 amounted to 9,194. In 1952 they totaled 5,736. At the end of 1953, the utility's figures show that a total of 25,807 room coolers had

been sold in the area. Thus the 1953 sales alone represented more than a third of the total sold to date.

Data collected by the utility classifies the contract installations by type of occupancy.

These figures show, for example, that there were 120 residential systems installed in 1953, compared with 19 in 1952. Total such installations as of Dec. 31, 1953, is given as 230.

Offices represent the largest number of installations today with 1,091 installations totaling 20,845 hp. Restaurants and taverns are second with 1,066 for 11,223 hp.

Other big buyers of air conditioning, according to the Baltimore figures, include banks, barber and beauty shops, department stores, drugstores, miscellaneous stores, and theaters.

Albern Universal Appointed Unarco Toronto Distributor

TORONTO, Ont., Can.—Albern Universal Ltd. here has been appointed distributor for "Unarco" heating and air conditioning units, it was announced recently.

Albern Universal, according to Jack L. Kamin, president, will represent Unarco's heating and cooling division in Southern Ontario and the Montreal metropolitan area.

Kamin, who is also president of Camesco Lighting Co., Ltd. here, said Albern Universal is currently making arrangements to set up offices in Montreal and is appointing dealers.

Turner Directs Sales of Lee Air Conditioning Div.

MEMPHIS—B. J. Lee Co., recently named Servel air conditioning wholesale distributor for the Memphis trade territory, has announced the appointment of Robert E. Turner, Jr. as sales manager of the firm's air conditioning division. Turner was formerly associated with Wallace Johnston Distributing Co.

PLENTY FOR FREE
For "easy-to-get"
product information...
use coupon on "What's
New" page.

McQuay RADIAL UNIT COOLERS

FOR
Refrigeration
above 35° F
OR FOR
Comfort Cooling



For WALK-IN COOLERS, florist boxes and a wide variety of applications where high humidity is a requirement, McQuay Radial Unit Coolers will give you proved and preferred performance. Also recommended for economical comfort cooling in small offices, shops, and work rooms. Cleanable filters are available as an accessory.

The radial design uniformly distributes air throughout the room. The unit is styled for minimum height and depth to

provide more head room. The close fin spacing gives maximum coil efficiency.

In seven sizes from 200 to 870 Btu per degree temperature difference. Equipped with life lubricated motor; Hangers for ceiling mounting; Insulated drain pan; Knockout plugs are provided on either side for connections. Representatives in all principal cities or write McQuay Inc., 1607 Broadway St. N.E., Minneapolis 13, Minn.

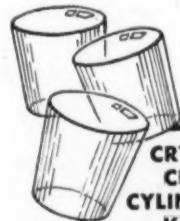
McQuay INC.



REFRIGERATION
AIR CONDITIONING
HEATING

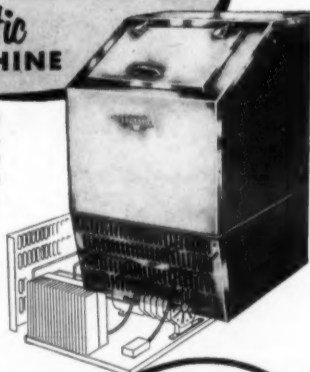
LA CROSSE KUBE KING Automatic ICE MACHINE

Kube King, the leader in practical design, economical operation produces approx. 2,000 kubes every 24 hrs. . . storage bin holds about 75 lbs. . . uses only 5 qts. of water per freezing cycle.



CRYSTAL
CLEAN
CYLINDRICAL
KUBES
WITHOUT HOLES!

WRITE
TODAY



AVOID
SERVICE
HEADACHES

Removable stainless steel front panel, condensing unit, compressor pulls out for quick servicing. No gadgets with modern Kube King engineering.

LA CROSSE COOLER CO.

Factory & Gen'l. Offices:
3000 Losey Blvd., La Crosse, Wis.

Export Office: 30 Broad St., New York City. Cable: Eximpori



Ben-Hur Shows Its Refrigerators

Ben-Hur Mfg. Co. has introduced a compact new line of home refrigerators which will be offered to its home freezer distributors on a limited basis. Here, with Rita Mueller, General Sales Manager R. C. Graves shows some of the features of the 9.6-cu. ft. Deluxe model, including full width freezer compartment which holds up to 36 lbs. of frozen food, a butter keeper, door shelves, and "cold to floor" design. Three other models, the 7.4 Deluxe, 9.4 Standard, and 7.2 Standard, complete the new line.

Goldschmeding Named Refrigerator Sales Manager for Philco

PHILADELPHIA—Appointment of John J. Goldschmeding, Jr., as refrigerator sales manager for the Appliance Div., Philco Corp., was announced recently by Raymond A. Rich, vice president and general manager of the division.

Goldschmeding has been Texas Div. manager for Philco Corp. since 1949 with headquarters in Dallas. In his new capacity, he will succeed A. J. Rosebraugh, recently named a vice president of the Appliance Div.

Succeeding Goldschmeding as Texas division manager will be James T. McMurphy, now electronic representative for Philco in its capital division with headquarters in Washington, D. C.

At the same time, it was announced that Alfred O. Tepper, presently appliance representative in the capital division, will be responsible for the company's activities in that division in both the company's electronic and appliance fields.

Mitchell Comes to Avco As Market Development Mgr.

CINCINNATI—H. J. Mitchell has been named market development manager for Crosley and Bendix Home Appliance Divs. of Avco Mfg. Corp., according to Parker H. Erickson, Avco vice president and appliances general manager.

Mitchell, formerly director of sales training for Bendix, resigned that post last fall to become assistant to the executive vice president of Eureka Williams Corp. He left that position to return to Avco.

In his new post, Mitchell will concentrate his efforts in selected key markets, working closely with distributors and dealers in an effort to increase Crosley and Bendix penetration.

He joined Bendix in 1945 as division sales manager for southern Ohio and Indiana and northern Kentucky.



H. J. Mitchell

Delaware Valley Names Kelley V. P., Gen. Mgr.

PHILADELPHIA—The appointment of Jack J. Kelley as vice president and general manager of Delaware Valley Distributors, Inc., distributor of Crosley and Bendix home appliances in the Philadelphia area, was announced recently by Theodore H. Kapnek, president of the distributing firm.

Kelley, who most recently has been market development manager for the Crosley and Bendix Home Appliances Div. of Avco Mfg. Corp., has been associated with the appliance industry in executive capacities for 10 years.

Georgia Appliance Distributes Deepfreeze Throughout State

ATLANTA—Georgia Appliance Co. here has been named distributor for Deepfreeze Appliance Div., Motor Products Corp., reports L. R. Walker, the manufacturer's manager of field sales.

Covering the state of Georgia except for five northwest counties, Georgia Appliance will supply dealers as exclusive distributor of Deepfreeze appliances. The firm also distributes Apex laundry equipment and Hallicrafter radio and television sets, the announcement said.

Executives include Walter Trippe, president, and J. G. Joseph, executive vice president.

Hurley Resigns as Thor Board Chairman, Buckingham Named

CHICAGO—The board of directors of the Thor Corp. has announced the resignation of Raymond J. Hurley as chairman of the board and as a member of the board of directors of the company.

The chief executive officer of the company will be Thor President Henry C. Buckingham.

Hurley became Thor board chairman in 1948.

Westinghouse Moves To Merchandise Mart

CHICAGO—Westinghouse Electric Corp. will relocate its appliance, television, and radio national showrooms to the Merchandise Mart in Chicago.

The firm will occupy 9,400 sq. ft. of space on the 11th floor of the building, in the present location of the Good Design exhibit.

Remodeling of the space will begin immediately. It will be completed in June.

Regional offices of the Westinghouse appliance and television-radio divisions, now located in the second floor Merchandise Mart space of the company, will be incorporated in the new showrooms.

Westinghouse will move its showrooms from the American Furniture Mart, Chicago.



Attention-Getter

OASIS AIR DRIER DEALERS claim more demonstrations and sales from the "Moisture Monster" point-of-sale display because it is an outstanding attention-getter. The display, in three colors with Day-Glo, features the same "monster" theme used in Oasis national advertising and dealer mailing pieces.

Besides the easel card, the special display package for Oasis dealers includes self-mailers, stuffers, specification sheets, and Kodachrome postcards.

Self-Serve Appliances Opens

TORONTO, Ont., Can.—Home Utilities Ltd., Toronto's first "Self-service appliance supermarket," has been opened at 1391 Yonge St.

Mouldings are Silent Salesmen

JOHN LEES

MOULDINGS, STAMPINGS, ASSEMBLIES. Complete Facilities for Buffing, Electrolytic Polishing, Welding, Forming and Aluminum Anodizing.

Mouldings by John Lees do a steady job of selling both before and after the sale is made. Stainless steel remains handsome, keeps your products looking good all the time. Let mouldings by John Lees help sell your product and keep it selling. Write for catalog.

JOHN LEES

DIVISION of THE SERRICK CORPORATION
Kilgore Avenue, Muncie, Indiana, U.S.A.

Lonesome part of a popular product

The hermetic motor—that part of a modern refrigerating unit the user never sees—is truly "out of sight... out of mind."

And the fact that it is forgotten is a tribute to its design and construction, for here is a motor that must always function perfectly, while permanently enclosed in the compressor housing. The "forgotten" part of many of America's most dependable refrigeration units is an Emerson-Electric Hermetic Motor.

You can benefit from Emerson-Electric's 63 years of experience in motor design and production. If you have requirements in ratings from 1/20 to 5 h.p., or hermetic motors from 1/8 to 20 h.p., Emerson-Electric has the right motor for you. Your inquiry is invited.

THE EMERSON ELECTRIC MFG., CO.
St. Louis 21, Mo.

HERMETIC MOTORS
1/8 to 20 H. P.

We offer manufacturers of hermetically sealed units a broad background of engineering experience in hermetic motor design. We also have unequalled facilities for the production of hermetic motor parts. Cooperative engineering service available without charge. Write for Bulletin No. M402.

EMERSON ELECTRIC
MOTORS • FANS APPLIANCES

Distributor Praises Sunday Closing for Appliance Stores, Feels Evening Openings Will Meet Needs

ROYAL OAK, Mich.—Praise for the Royal Oak city commission's recent action in passing an ordinance to keep appliance and furniture stores closed on Sunday was showered on the city fathers by L. F. Johnson, president of the Maytag Central Co., appliance distributor, in Detroit.

In a letter to the commission, the distributor declared, "many retail outlets handling either furniture or appliances or both are open many evenings during the week, therefore offering ample opportunity for all who wish to purchase this kind of merchandise."

"It is our humble opinion that a poll of the citizenry of your city would result in an overwhelming support of the action taken by your council."

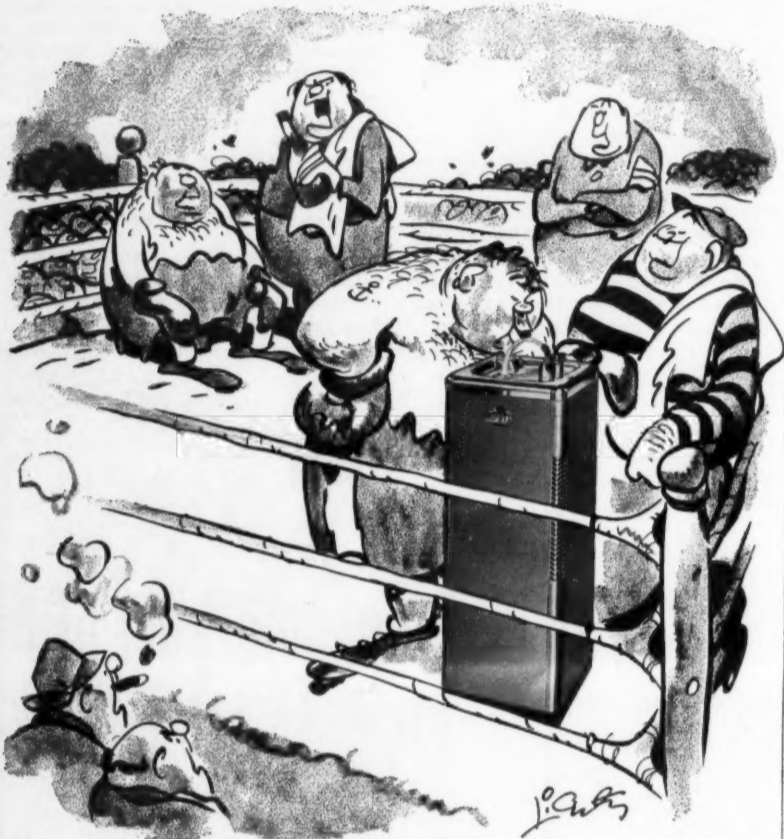
"As a wholesale supplier of

many retail outlets of appliances both large and small, we know that these merchants as a group likewise do not favor carrying on their business on Sunday. For these and many other reasons we believe that enactment of a Sunday closing ordinance for such type retail stores has been an action in the public interest and is a forward and beneficial step for your community."

Bendix Raises Price of 'Dialomatic' Washer \$10

NEW YORK CITY—Bendix recently increased by \$10 the suggested list price of its "Dialomatic" washer model WDN, it was reported here.

New price of the washer is listed at \$179.95.



"That's Muggsy for ya—always puttin' on airs!"

More cooler in less space when you sell the "Triple Feature" OASIS!

When you sell Oasis, you sell the Pre-Cooler that almost doubles capacity... fanless silence... no squirt... requires less floor space! They're features your water cooler prospects want. They're features your prospects know about, too, thanks to "Lichty cartoon" ads in Time and Newsweek, supported by folders in Sweet's Architectural and Plant Engineering Files!

You can make additional water cooler profits with genuine Oasis Accessories!

A bigger profit on the new coolers you sell—and additional profits on the coolers you have already sold! That's what you get when you sell Oasis quality water cooler accessories, backed by factory service!



Send for details on Oasis Water Cooler and Air Drier, and Dealer Plan. (Booth 626 NAFPC Convention)



Oasis

WATER COOLERS

THE EBCO MANUFACTURING CO., 409 WEST TOWN ST., COLUMBUS 8, OHIO

Depend on OASIS for top quality accessories!

OASIS accessories, which fit most makes of water coolers, are made by the builders of the complete water cooler—designed and manufactured by Oasis for perfect performance and top quality. Year 'round factory service by qualified personnel is available for all Oasis products.



Stainless Steel Wall Fountain



"Push Button" Glass Filler

A Dealer Panel Discusses—

How To Pick Sound Financing Program, What Kind Of Insurance, What Controls a Dealer Needs

CHICAGO—"An appliance dealer should exercise the same care and concern in his choice of a financial institution as he does when deciding what particular brand of merchandise has the most public appeal..."

"Spend the time that it takes to find the most competent insurance counsel available to you. Not only will it save you time in the long run but it may save you many thousands of dollars as well."

These were two of the many suggestions offered to dealers by speakers at a management clinic at a meeting of the National Appliance & Radio-TV Dealers Association. Subjects covered by a panel of experts included finance, insurance, business controls, law, and taxes.

Making up the panel were Joseph Cronin, The Pennsylvania Co. for Banking & Trust; Edward Mack, Jr., NARDA insurance counselor; J. A. Cobbe, NARDA chief legal counsel; Prof. Ray Howard, Commerce Dept., Northwestern university; and Wallace Johnston, president of Wallace Johnston Appliances, Memphis, who acted as chairman of the clinic.

Outlining what a dealer should look for in a financial institution Cronin said:

What Is Financing Firm's Reputation?

"Too frequently it is accepted practice not to bother to question the policies of the financial institution, its reputation for adhering to a sound and sensible course..."

"How often do dealers inspect and appraise the collection department procedure of their bank or finance company before signing an agreement? How many dealers make inquiries regarding the number of years the financing institution has been in the installment credit business, and what it can contribute to the dealer's welfare in the form of counsel and guidance?"

When the price is the same, why not select the best institution available, Cronin asked the dealers, pointing out that an efficient collection department can save them a lot of money.

He stressed: "There is a difference, and dealers owe it to themselves to make a wise decision; it may, one day, keep them in business!"

Need for 'Loss Reserve'

Continuing, Cronin declared that regardless of the type of agreement between a dealer and his bank—full recourse, repurchase, or some variation of either plan—the prudent dealer should build up a loss reserve account "to absorb the shock of repossessions."

"There are several ways this can be done without stress and strain on the dealer, and should be done in cooperation with the dealer's financing institution," he said. "The most accepted way to obtain this loss reserve is by taking a portion of the finance charge paid by the customer and accumulating these reserves for the benefit of the dealer."

"Most financial institutions make an accounting to their dealers every calendar year and permit the dealer to draw monies from that reserve in the excess of an agreed percentage of the outstandings."

"In addition to building up such a loss reserve, which is a sound business policy, the dealer derives the benefits of the bank's confidence in not necessarily limiting the amount of paper being purchased in relation to the dealer's net worth or some other basis of

calculation, but enables them to go much further depending upon the experience and balance on deposit in the reserve account."

Cronin reported that about 10,000 commercial banks are servicing appliance dealers throughout the country. He also noted that approximately 22% of the loan portfolio of commercial banks in the appliance field is installment credit.

It was Mack who advised the dealers to find the best insurance man they can.

Get the Best Insurance Man You Can Find

"It won't cost you any more to do business with the very best insurance man in your community than with the fellow who has just come into the business... and in the long run, it will cost you less!"

Urging retailers to protect themselves against the "catastrophic loss," the NARDA insurance counselor suggested: "When you are considering the type of risk which should be insured, pay little attention to the possibility of the occurrence of the contemplated loss, and give primary attention to the consequences that will result in the event the loss were to occur."

"It is my opinion that too many people give prime importance to the probability feature, and take out insurance against losses that could probably be met with an adequate budget. These same individuals very often allow other risks of an 'improbable' nature to go uninsured, which sometimes results in disastrous uninsured losses."

What Insurance Does A Dealer Need?

Mack then listed the types of insurance considered necessary for appliance dealers, the types deemed desirable, and other types that are available.

He said these types of insurance are necessary: comprehensive general liability (property, products, elevator, non-ownership automobile, etc.); automobile liability; workmen's compensation; and fire and extended coverage.

Listed as desirable were: "3-D" coverage (dishonesty, destruction, and disappearance); business interruption insurance; and key man life insurance.

Additional types of insurance available, Mack noted, include installment floaters, plate glass, boiler and machinery, leasehold interest, valuable papers, accounts receivable, and group insurance.

Answering questions sent to him

by association members, Cobbe noted that many of the queries pertained to anti-trust laws. He said this subject is not too important to retailers "because you are not selling for resale. You are selling the ultimate customer. Therefore that puts you in a separate class, and very many of the anti-trust laws would not make any difference to you."

Is Price Setting Legal?

Another question was: "Is it illegal for a local group of dealers to agree on a set price for a certain piece of merchandise?"

Cobbe replied that businessmen in the same line can get together for information on anything.

"You can learn—that is why we have these meetings, to educate ourselves and find out what is going on," he remarked. "Maybe you will find out that you are not charging quite enough, although it costs you as much to do business..."

"So I think you can get the same result without ever conspiring or agreeing on anything. Just get together and use your own sense about what you learn at the meetings. I don't think they can hurt you for doing that."

Asked, "Can you discuss discount house dealers by name, bringing forth evidence of advertising, sales tags, or information where a discount dealer failed to service a consumer who purchased at a discount?" Cobbe answered:

"Yes, you can; you can condemn it or say anything you want to about it, as individuals. You can talk about it in your organization, but it cannot be an organization matter."

Johnston, who is immediate past president of NARDA, emphasized the value of having controls over all phases of a dealer operation.

How Budget Works

He said his firm prepares a budget, based on past experience, which serves as a guide for current operations. From the budget, the speaker noted, he knows his break-even point and other necessary data.

Promotions and contests are staged in the early part of the month in an effort to reach the break-even point as soon as possible, Johnston pointed out.

Among other things, Prof. Howard discussed some of the factors that should be considered in deciding what type of business organization to use to gain the greatest income-tax advantage. In general, he said, the larger the income the more likely the concern is to benefit taxwise by using the corporate form.

Here's Harry Alter's
DEPENDABOOK

No. 161...

1954

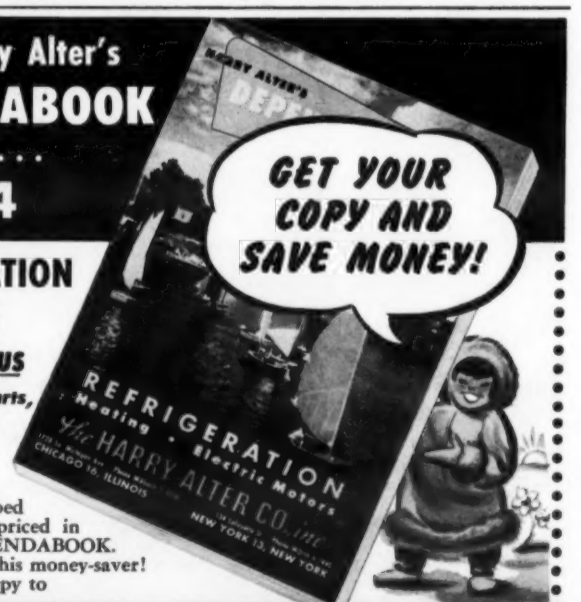
**REFRIGERATION
PARTS and
Supplies plus**

**Electric-Motor Parts,
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There are over 9,000 items illustrated, described and rock-bottom-priced in our newest DEPENDABOOK. So—get and use this money-saver! Write for your copy to

The HARRY ALTER CO., Inc.
1728 S. Michigan Ave., Chicago 16, Ill.
134 Lafayette St., New York 13, N. Y.

WHOLESALE ONLY
"Harry Alter gives you snappy service."





THIS ICE CUBE MAKER makes all the ice cubes needed by Camel Liquor Store, Phoenix. Owner Joe Campbell sells them to customers at 6 lbs. for 25 cents.

Customers Come from Miles

Automatic Ice Cuber Is Answer to Liquor Store's Constant Complaint, 'Short of Ice'

PHOENIX, Ariz.—When extremely heavy demand of tourists who fill up the Phoenix area during the winter months put a strain on his ice supply, Joe Campbell, owner of the Camel Liquor Co.

here, went to the Ace O'Hara Co., Carrier refrigeration equipment dealer here, for the answer to his problem.

The result, after studying the situation, was the installation of the Carrier automatic ice cube maker, which is in constant operation directly behind the left main window of the mid-town liquor store, and which guarantees a minimum of 50 lbs. of clear, sparkling ice cubes at a time.

Camel Liquor Store sells the ice cubes packed in double-thickness, insulated cardboard bags at 6 lbs. for 25 cents, and because tourists celebrating their holiday in the "desert inns," hotels, motels, and lodges surrounding the city are perennially "short of ice" the cube maker has been responsible for a lot of additional sales volume, Campbell reports.

"We've found that customers will drive many miles out of their way in order to visit our store and to insure an adequate supply of ice cubes for the evening," Campbell said.

The sharp acceleration in sales which followed its installation has shown that "making ice cubes on the spot" was the ideal solution, Campbell said.



Stop service calls . . . keep out rust and sludge . . . open new doors to sales acceptance!—with coolers, ice-makers, sell "Taste-Master"—checks chlorine, traps sediment; promotes service-free satisfaction with all water processing appliances. Write—

Filtrine MANUFACTURING CO.
BROOKLYN 38 • N. Y.
"Water Coolers and Filters for 40 Years"

CRUSHED ICE
SNOW ICE.....

At the Counter!

With these 2 NEW wonder machines

(Each occupies only 11" x 13" counter space.
Each gives the desired quantity as wanted)

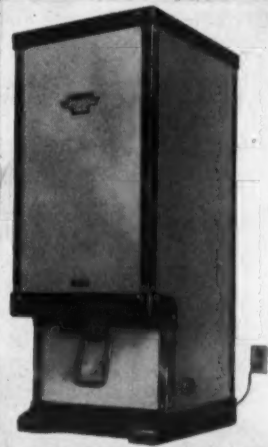
KRUSHT-ICE Ice Crusher

A flick of the finger and it produces sanitary, uniformly-sized crushed ice for soft drinks, iced tea, iced coffee, fruit cups, salads, sea foods, etc.

SNOW-ICE Ice Shaver

In a flash, this automatic ice-shaving machine supplies sanitary snow ice for SNOW BALLS and SNOW CONES. Also fine for bar use.

KRUSHT-ICE MACHINE ILLUSTRATED



BOOTH 1243
National Restaurant Show
May 10th-14th, 1954
Navy Pier, Chicago, Ill.

ICE APPLIANCES, Inc.
1775 Broadway, N. Y. 19, N. Y.
Distributor and Dealer
Inquiries Invited

More Backroom Storage Space Is Biggest Need of Frozen Food Sellers

GRAND RAPIDS, Mich.—Grand Rapids Wholesale Grocery Co. is surveying the frozen food operations of its 500 member stores in central and western Michigan in an effort to help them do a better job of merchandising frozen foods, according to Don Davis, director of the cooperative's perishable division.

The concern is gathering information on such things as size and type of equipment, supplemental storage, appearance, condition of inventory, cleanliness, lighting, competitive position, and a breakdown on types and brands stocked. Survey findings will be used to make operational plans designed to fit the needs of the varied membership, Davis said.

He pointed out that about 100 of the Spartan stores which the firm supplies are superettes with dated equipment. Another 250 are fair-sized supermarkets with a good deal of inadequate or obsolete equipment, and about 150 are big, modern markets equipped with new and generally adequate facilities.

More backroom storage space for frozen foods is the main equipment need of most retailers, Davis stated. He said that many dealers have only an 8 or 10-ft. case.

Commercial Refrigeration

Special Refrigerated Display Case for Just Eggs Increases Supermarket Sales 25%, Study Finds



ITHACA, N. Y.—A refrigerated display case specially designed for holding nothing but eggs increases sales at least 25%, Prof. L. B. Darran, who headed a Cornell university research project in food stores and supermarkets in upper New York state, reported recently.

Such a case, developed by Dr. Darran and an associate, was used in the research tests. It has a glass front and is open at the top. Different sizes and qualities of eggs are partitioned by refrigerated plates. Cold air circulates through the egg carton openings from end

to end. The case is manufactured by Bailey & Perkins Co. of Utica, Mich.

Stewart Cumming, partner in Bailey & Perkins, added that the company is producing the "Freeze-Rite" egg merchandising cabinet in two sizes. One is 56 in. long and the other 79 in. long. The smaller contains four compartments that will hold 48 dozen eggs each, or a total of 192 dozen. The larger unit has six compartments and will hold a total of 288 dozen eggs.

The compartments measure 24½ in. from front to back, 12 or 12½ in. wide, and 19½ in. high. Overall the cabinets are 30 in. deep and 37½ in. high. With fluorescent lighted superstructure, they measure 53½ in. high.

The smaller case, the EG-3056, is powered by a ¼-hp. Tecumseh compressor using "Freon-12". The EG-3079 has a ½-hp. Tecumseh compressor using the same refrigerant. Both cases are equipped with a Rancostat temperature control and an automatic expansion valve for refrigerant control.



IT GIVES YOU COMPLETE

2-IN-1 ICE SERVICE

One unit does the job of two for the price of one.

And that isn't all you'll like about the all-new 2-in-1 Crystal Tips or Chips Ice Maker. Makes over 3700 standard pieces of ice a day. Produces chipped sized ice at the flip of a switch. Attractive, solid, clear, long-lasting ice. Standard storage bin accommodates a full day's production. Quiet operation. No noisy crushing mechanisms. Simple to install. Takes less than 6 square feet of floor space. Under the counter installation if desired.

You'll marvel at its versatility and compactness. See it demonstrated at the show.

SEE IT FIRST!

AMERICAN AUTOMATIC ICE MACHINE CO.

1785 FOURTH STREET N. W. • FARIBAULT, MINN.

A Subsidiary of McQuay Inc., Manufacturers of Heat Transfer Equipment Since 1923

Wicks To Represent Marlo In Philadelphia Area

ST. LOUIS—Marlo Coil Co. has announced the appointment of Kenneth W. Wicks as its representative in the Philadelphia area, with headquarters in suburban Upper Darby.



K. W. Wicks

Wicks had previously served for four and one-half years as sales engineer for Marlo in the Washington, D. C. office.

A graduate in mechanical engineering of Pratt Institute, Wicks was associated with E. A. Lundy Co., New York, for four years, specializing in the design and installation of railroad air conditioning and refrigeration equipment.

He is credited with installing the first alternating current system on the Atlantic Coast Line railroad. His military background includes work in electronics.

School Teaches Refrigeration

ROCHESTER, N. Y.—Courses for refrigeration technician are being offered at the Genesee Trade School, it was announced by Earl J. Connelly, director. Plans are under way for an evening extension program including the courses.

Space for 50 Cakes

Big Refrigerated Case Near Display Window Draws New Bakery Customers

PHOENIX, Ariz. — Solving a serious space problem and permitting one of the largest refrigerated baked goods displays in the state, was the purpose of a custom-built low-temperature display case developed by Ted Meyer, owner of Ted's Quality Bakery here.

Although his retail store is of exceptional size, with a U-shaped arrangement of display cases to either side and at the rear, Meyer could not find space available for the installation of a refrigerated case, when he determined to go into this profitable specialty.

He did not want to sacrifice any non-refrigerated cases because of the heavy volume he had built up.

The solution came in the form of a new, elongated case, which is mounted directly behind the "all-glass front" of the bakery, in what was formerly open floor space.

The custom-built refrigerator, which was converted from a standard "Humid-Air" display box by Arizona Refrigeration Co., is covered over with maple hardwood. Extending to a height of 4 ft. behind the window, the case is 10 ft. long, 3 tiers high and provides access to the interior by means of four heavily insulated doors at the rear.

Powered by a 1-hp. refrigeration unit, it can maintain temperatures of 20° F., if desired, for display of large quantities of cakes, whipped cream pastries, ice cream rolls and cakes, cream puffs, chocolate eclairs, custard pies, whipped-cream topped pies, and other such specialties.

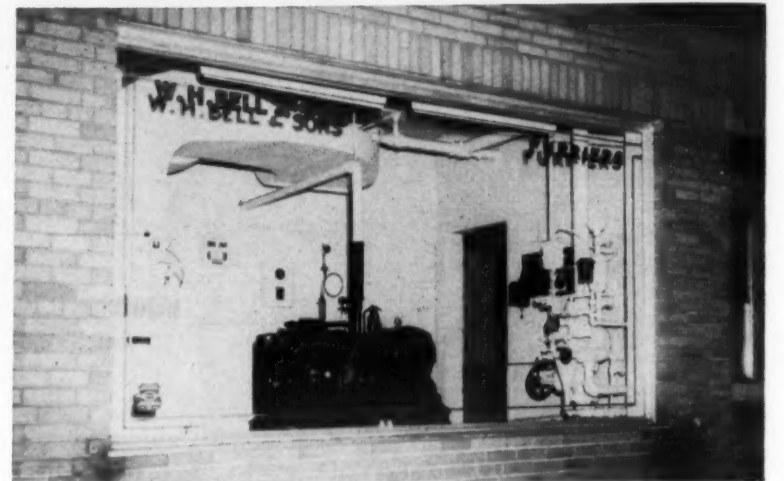
Because of the large amount of display space, Ted's Quality Bakery can produce a large supply of these items and keep them under refrigerated storage and on display simultaneously.

Inasmuch as the bakery is located on one of Phoenix's busiest east-west avenues, with heavy traffic through the day, the position of the display case, two feet back from the all-glass-front, means maximum attention.

With space for at least 50 cakes, the big refrigerator is quickly paying for itself, in expanded cake volume, according to Meyer.

To augment public interest in his specialties, a neon sign which points out "Whipped Cream Cakes & Pies" has been added at the front of the bakery. Smaller neon signs around an 8-ft. marquee extending over the sidewalk, indicate "Special Cakes Made to Order" and "Danish Pastries".

Commercial Refrigeration



SHOW WINDOW display of condensing unit serves as excellent means of advertising for Toronto fur vault.

Customers See How It Works

Toronto Furrier Installs Storage Vault's Refrigeration, Safety Equipment In Display Window

TORONTO, Ont., Can.—"The usual fur storage advertising gimmick is a fake bank vault door, but we don't believe in it."

Instead W. H. Bell & Sons here has dramatized the vault's refrigeration equipment by placing the condensing unit in a show window along with the heating plant and fire sprinkler control system, explains Dixon Bell, one of the sons associated with this leading Toronto furrier.

"We have to have refrigeration and we have to keep the equipment and the entire vault area looking nice anyway," Bell added.

At night the brilliantly lighted display of gleaming machinery (the condensing unit is painted a deep green) attracts attention of passersby.

Occupying the center spot in the machinery room is a 3HF4 Worthington water-cooled condensing unit which is driven by a 15-hp. motor. It was selected on a 20° F. evaporator basis, explains George E. Bennewies, who installed the job.

Low sides consist of four S-1260 Keeprite blower units, one for each bay of the vault, which were selected on a 17° F. temperature difference to keep humidity of approximately 54% to 58% while holding a vault temperature of 40° to 44° F. The system is controlled on low pressure.

Some 15,000 to 16,000 fur coats can be accommodated in the vault, which measures approximately 70 ft. long by 40 ft. wide by 29 ft. high. This height gives sufficient space to permit five tiers of coats.

Racks for the coats were fabricated from 1 1/4 in. and 2 1/2 in. steel pipe, the larger size being the uprights.

Catwalks are provided on two levels so that two tiers of racks can be conveniently reached from each catwalk level. Lowest tier of racks is worked from the floor.

This arrangement, points out Bell, eliminates the need for long poles in hanging or removing coats from the racks.

Main catwalks run down the center of the vault the long way with branch catwalks extending from the center to each side wall.

Walls of the building were constructed of 10-in. concrete block, vaporproofed on the outside. Floor is 12-in. reinforced concrete. Walls are insulated with two layers of 2-in. glass fiber insulation and finished with 1/4 in. asbestos sheeting.

"This not only has a good appearance, but it is fireproof," comments Bennewies. "It is surprising how easy it is to apply."

Ceiling consists of pre-cast Haydite slabs molded in concave form to give strength. This is protected by 4 in. of glass fiber insulation.

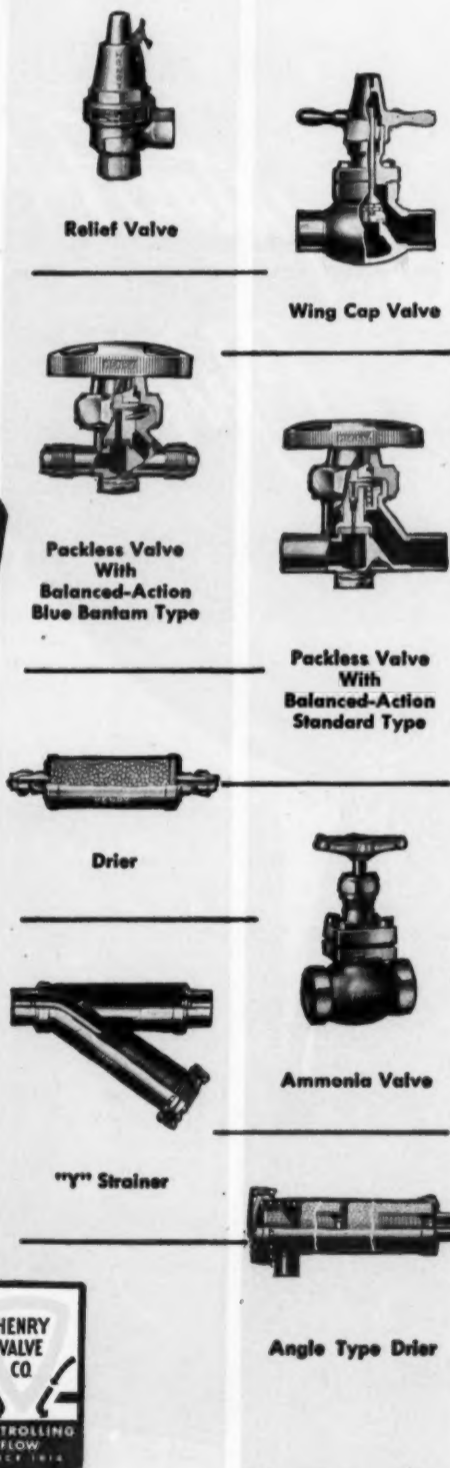
The Industry's confidence
in Henry Products is reflected
by the largest demand in
the Company's production
history over the past
40 years

HENRY

Valves, Driers and Strainers

Henry Valve Co.

Melrose Park, Illinois (Chicago Suburb)
Cable: Hevalco, Melrose Park, Illinois

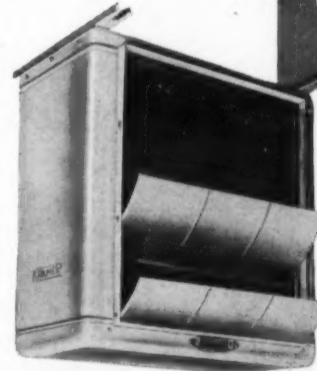


Valves • Driers • Strainers • Control Devices and Accessories for Refrigeration • Air Conditioning and Industry Applications

7 SIZES
2,500 to 12,000 BTU

KRAMER

Kay-Tee



Kramer's constant engineering research and mechanical development gives you...

A BETTER COIL
for LESS MONEY!

WRITE FOR CATALOG R-230

KRAMER TRENTON CO. • Trenton 5, N.J.



Radio, TV Station Installs 57 Tons Of Air Conditioning In \$500,000 Bldg.



PART OF THE MAIN TV studio of station WSAZ which is air conditioned by two 10-ton self-contained Frigidaire units. Employees and actors are comfortable under the hot lights.

HUNTINGTON, W. Va. — Celebrating its 30th anniversary on the air, radio and television station WSAZ here recently moved into its new \$500,000 building air conditioned with 57½ tons of Frigidaire cooling equipment.

Much of the equipment used in the building, for which the Austin Co. of Cleveland was the contractor, was either invented or de-

signed and all of it installed by WSAZ technicians.

The spacious lobby and reception center is decorated with richly colored draperies, walls, and furnishings. A big screen TV set is built into a wall for visitors' entertainment.

Clients Observation Lounge

Just behind the reception center is the glass-enclosed, soundproof clients' observation lounge where TV commercials and programs or rehearsals can be viewed and discussed in private.

The two television studios are adjoining and have a combined area of over 3,000 sq. ft. The larger of the two has 1,600 sq. ft. of space and can seat an audience of 150 people for either a radio or TV production. It is possible to set up a dozen different production sets at the same time to quickly switch from one to the other.

Seventy-two overhead lights in the two studios can be adjusted for any lighting effect desired. Microphones can be plugged in to 30 different locations, providing excellent sound coverage.

Building Is 'Zoned'

Since there is a terrific heat load in the TV studios from the equipment and powerful overhead lights, it was decided to "zone" the building to achieve maximum cooling and/or heating where and when it was needed. With this type of installation the complete system need not operate full time.

The air conditioning system consists of five air handling units, each with both direct expansion cooling coil and hot water heating coil.

Air for executive offices is handled by a Frigidaire 7½-ton self-contained unit. General offices are kept comfortable by a Frigidaire 10-ton self-contained unit, with two more similar units caring for the two large TV studios. A Frigid-

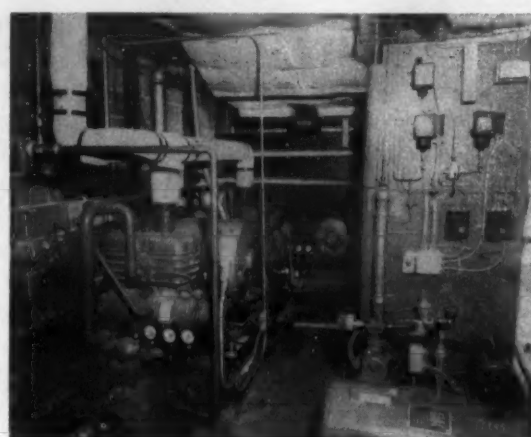
aire 20-ton compressor connected to an eight zone fan and coil section provides air at proper temperature for announcers' booths, news rooms, transcription room, audition studios, and main lobby.

The over-all grouping of equipment allows heating only, cooling only, or ventilation only. Any unit can be operated independently of another and is controlled by separate thermostats. A cooling tower connected to all five systems provides great savings in water usage.

To provide a satisfactory system

of ductwork throughout the building to carry the air without noise, a volume control was installed in each duct and special acoustical material was used to line them. Thus, the sound of air will not be picked up by sensitive microphones.

Also a necessary part of the equipment is a system of controls that reaches every section of the building and is constantly sensitive to temperature and humidity changes. This equipment provides ideal comfort conditions at all times.



ONE GROUPING of the Frigidaire air conditioning equipment installed for cooling the station. At right is a self-contained 7½-ton unit for the executive offices. At rear center is a self-contained 10-ton unit for cooling the general offices. Left, is a 20-ton compressor connected to an 8-zone fan and coil system which provides cooling for announcers' booths, news rooms, transcription room, audition studios, and main lobby.

The station, which now serves more than one million viewers in West Virginia, Ohio, and Kentucky, first saw the light of day as a radio station in Gallipolis, Ohio in 1923.

Glen Chase, original owner of the station, moved it to Huntington and installed it in the show window of a local electrical contractor. At first the station broadcast only four hours a day and commercial users paid about \$4 per hour for time on the air.

It wasn't long, however, before the advantages of radio broadcasting were recognized and the station had to move to larger quarters and increase its time on the air.

Became TV Station In 1949

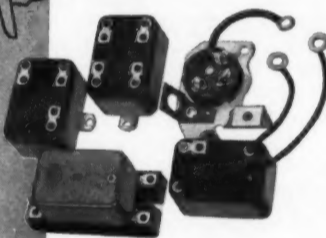
In 1949, the station received its television license. In limited studio space with limited facilities, it began broadcasting to TV set owners within a 100-mile radius of Huntington.

In its new home, the station has the finest in television equipment. If desired its photo and art department can produce a sound movie film. Through use of remote truck equipment, news events can be televised as they occur, or transmitted a few hours later by wire-photo.

In addition, any product or service can be offered for direct sale through the advertising facilities of the stations.

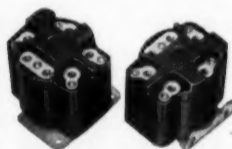
A COMPLETE LINE—Designed to Your Requirements

R-B-M MOTOR STARTING RELAYS AND OVERLOAD PROTECTORS



SERIES RELAYS

Balanced armature—Can be mounted in any position.



POTENTIAL RELAYS

Precision snap-action contacts. Convenient terminal board wiring. Totally enclosed.



OVERLOAD PROTECTORS

Patented bi-metal snap-action—Inherent protection. Large solder terminals. Manual and automatic.

Let R-B-M engineering and production facilities serve you. Phone 5121 or Write Dept. M-5.

R-B-M DIVISION
ESSEX WIRE CORPORATION
Legansport, Indiana



Controls for Electronic, Refrigeration, Industrial, Appliance, Communication and Automotive Industries.

MERIAM

FLOW METERS...

accurately indicate flow of chilled water supply. Portable Meriam Model A-286 Flow Meter is most often specified.

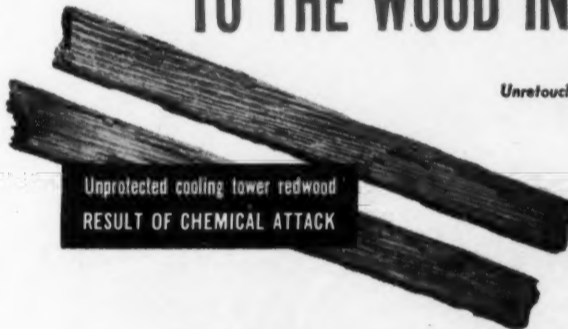
Shipped complete with valves, piping manifold, over-deflection chamber, 10' flexible hose with quick disconnect fittings and adaptor for pressure taps at orifice flange.

Write Department C-12

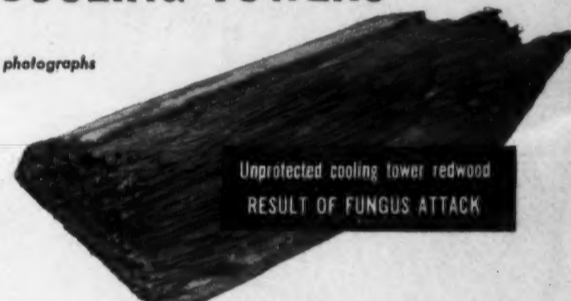
THE MERIAM INSTRUMENT CO.

10994 MADISON AVE. • CLEVELAND 2, OHIO

LOOK WHAT CAN HAPPEN TO THE WOOD IN COOLING TOWERS

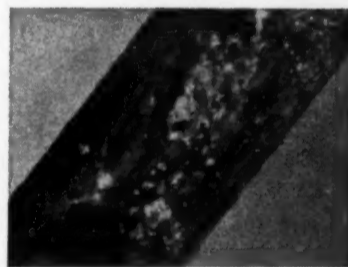


Unprotected cooling tower redwood
RESULT OF CHEMICAL ATTACK



Unprotected cooling tower redwood
RESULT OF FUNGUS ATTACK

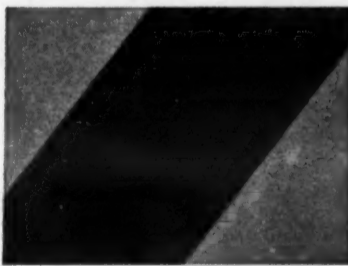
PRESSURE CREOSOTING ADDS YEARS OF LIFE TO HALSTEAD & MITCHELL COOLING TOWERS



FUNGUS ROTTED UNPROTECTED DECKING

Unretouched photographs

CLEAN PRESSURE-CREOSOTED DECKING



Examine these unretouched photographs carefully. Constantly wetted wood decking in a cooling tower is subject to immediate attack by fungus and marine parasites. It is also subject to chemical deterioration from acids in water. All wood used in Halstead & Mitchell Cooling Towers is protected against these twin enemies.

WHY PRESSURE CREOSOTING?

Creosote . . . with 162 elements toxic to fungus growth and parasites . . . also makes wood more resistant to chemical attack. Deep penetration of the wood by Koppers Pressure-Creosoting gives the longest possible wetted decking life. Therefore, all Halstead & Mitchell Cooling Tower decks are Pressure-Creosoted, and are guaranteed against rotting due to fungus growth . . . for 20 years!

ONLY HALSTEAD & MITCHELL OFFERS THE

20-Year Guarantee!

ON THE WETTED DECK SURFACE against rotting by fungus attack

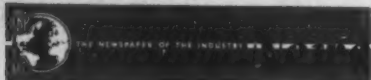
2 thru 100 Tons

Sheet-Steel Cabinets,
5-times protected
Stainless Steel Fans and Shafts
Weather Shielding
Everdur Bolts for ease of
disassembly at any time.



At Leading Refrigeration & Heating Wholesalers Everywhere

OFFICES: Bessemer Bldg., Pittsburgh 22, Pa.



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F. M. COCKRELL, Founder

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MAY 3, 1954

Exit Crystal Ball

TWO developments in the air conditioning end of our industry reported in a recent issue of the NEWS will probably receive considerable attention, and well deserved, too.

Carrier Corp. engineers have devised and announced a method of estimating in advance the power costs for operating a residential air conditioning system.

Almost simultaneously, engineers of Airtemp Div., Chrysler Corp., came up with what they believe is a simple yet accurate guide to show neophyte salesmen, and veterans as well, just how much cooling capacity each of their window units has in terms of square feet of space under varying conditions.

If history runs true to form, these two estimating methods will be subject to revision and improvement in the future, and may receive some criticism. Yet, the engineers and companies involved deserve much credit for their pioneering efforts.

Both moves strike at important problems faced by the industry.

With means for predicting operating costs at their disposal, contractors and builders can give vitally needed information to prospective buyers of residential air conditioning and to the agencies concerned with financing the purchase. An important element of doubt is thus eliminated.

As for room coolers, under-capacity applications (which never promote goodwill for anybody) should become a thing of the past. By the same token, the conscientious salesman shouldn't have to over-size, and thus over-price, doubtful jobs.

The industry always moves forward when the slide rule replaces the crystal ball.

They'll Do It Every Time Jimmy Hatlo



Refrigeration Equipment Co.
Kansas City, Mo.

Editor:

I am enclosing a copy of our latest "RECOGRAM."

I would like to call your particular attention to the letter that is on the back, which is Ernie's own composition and feelings.

It was my opinion that you would be interested in knowing how he feels with reference to business this year.

Your comment will be appreciated.

G. L. EASLEY,
Sales Manager

Refrigeration Equipment Co.
Kansas City, Mo.

ARE WE BEING TALKED INTO BAD TIMES?

Let me quote you a few lines that seem very appropriate at this time.

"If you're being annoyed these days by people who seem to delight in forecasting bad times ahead for business? What do you say to them?"

"Why not ask them a few questions? For instance, Do you recommend that we resume a full strength national war economy? What nation do you think we should fight now so that more people may be employed? How many American boys do you want killed this year so we can keep the pay envelopes or profits fat?"

Regardless of WHICH industry we are engaged in for a livelihood, particularly the industry you and I represent—REFRIGERATION, AIR CONDITIONING, AND HEATING, opportunities probably have never been so bright in our field as right now. The interest in residential air conditioning, new sets of standards of home comfort, and the necessity of air conditioning in commercial and retail stores offer this opportunity for all of us.

"Naturally we are all concerned with the future. I think the professional forecasters and commentators know just as much about the future as we do, which is nothing."

Why not lay out our plans on the basis that business will be good for us if we make it good for us.

"Too many people feel that when things drop off a little, it calls for drastic action and relief on the part of the government. If business can't afford a little setback now and then without subsidization, we really haven't accomplished much in the last hundred years."

Here's what RECO plans to do:

1. To handle what in our opinion are the highest quality lines of merchandise and still be on a competitive basis.

2. To establish better and closer working relations with our manufacturing sources of supply, our competition and with our customers.

3. To take advantage of the educational and promotional programs offered by suppliers.

4. To maintain adequate stock to keep pace with the ever changing demand for new items.

5. TO SELL ourselves, our Company, our Products, and our Services, so that our customers can trade with RECO with confidence.

Please help us serve you better by offering your suggestions. We want them.

ERNIE TRAMPOSH,
President

The Marion Glass Mfg. Co.
Marion, Ohio

Editor:

A nationally known public Speaker recently made the statement over TV and Radio that the days for "Order Takers" are over and if we want prosperity without war, the "Selling Salesman" will have to do the job.

Which reminded me of a Salesman in Southern Indiana who had a thrill while writing a nice order.

A Farmer dropped into a Cadillac salesroom and sauntered around looking over this and that "Cadillac" and finally a dapper "order taking salesman" came up and asked if he might be of service. The Farmer, in much used work clothes said, "Yes, I wanted the prices on a Cadillac." (God Bless America). The salesman then condescended to show him around since he had nothing else to do and quoted prices with no sales effort. Finally the Farmer said, "Well, I'll take four of this one, one for myself, and three for my sons and daughter" and proceeded to write out the check.

When he handed the check to the order taking salesman, he asked "What colors can I get?" This gave the salesman a chance to go to the boss, not to check colors, but check the check. The boss called the bank and asked if the check was good and the cashier stated that the account carried an A-1 rating. This is a true story, we have names and addresses.

F. S. MCNEAL,
President

80 Severn St.

Longmeadow, Massachusetts

Editor:

I have been reading the NEWS for nearly 20 years, and it's still the best in the field. George Taubeneck: your forecasts were way ahead of the so-called experts.

Give us more than you have lately.

A. R. CONSTANTINE

Check Super-Flo advantages against any other liquid-line filter-drier

DEPTH FILTERING: A massive fiberglass bag, with unsurpassed depth filtering efficiency, removes unprecedented quantities of even the most minute foreign particles. As a safety bonus, a 30x150 mesh Dutch weave outlet filter stops all particles larger than .0046".

MOLDED DRYING: The famous molded Remcal drying element is unexcelled for permanent refrigerant drying, even at liquid-line temperatures. Strong and stable, it will not dust or powder.

NO PRESSURE DROP: Ingenious design of flow channels and flow graduators and availability of the entire length of the massive fiberglass bag for filtering completely minimize pressure drop.

AMAZING PRICE: Check Super-Flo's price, for both original equipment and replacement, against ordinary driers which do not have massive depth filters, molded drying elements and spun-end copper shells. You'll be amazed.

TROUBLE-FREE LIFE: The leak-proof, rust-proof copper shell with spun ends insures maximum protection against refrigerant leakage, and guarantees long service.

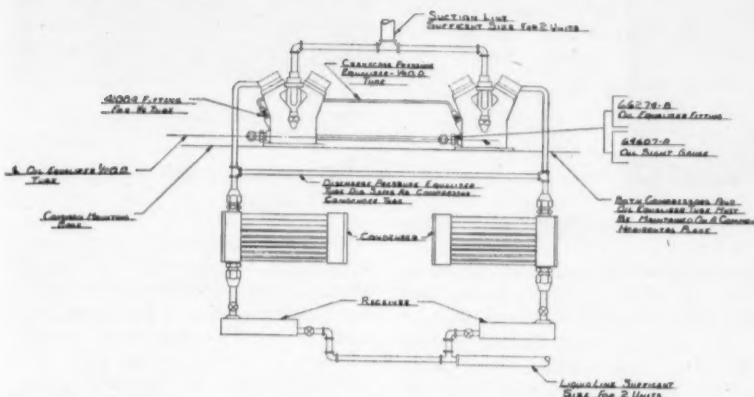
1/4 Thru 5 hp.

Available to the trade through wholesalers everywhere.



SLANTS ON SERVICE

"Slants on Service" is a "package" devised by the NEWS to meet the needs of readers in the service and contracting business.



SUGGESTED method of multiplexing Tecumseh open compressors models VD or VF.

Cross-Connecting Open-Type Compressors

Kits for cross-connecting its open-type compressors have been made available by Tecumseh Products Co., according to a recent service bulletin. The kits consist of an oil filler plug connector and a sight glass connector.

"We have a preference for installations of our equipment piped in such a way that each compressor or condensing unit is connected to its own evaporator or evaporators," explains T. S. Pendergast, service sales manager.

"We do realize, however, that on some applications, particularly where there is a wide variation in load or in temperature requirement, that there are advantages to cross connecting compressors and hooking them up to a common evaporator or evaporators."

Tecumseh has made three kits available. One is for VD, VF, and VFP compressors; second takes care of Model P and R compressors; third is for S model units. Standard fittings and tubing required are not included in the kits.

Typical hookup as recommended by Tecumseh is shown in the accompanying drawing which illustrates cross-connecting of VD or VF compressors.

Three equalizing lines are required to equalize crankcase pressure, oil level, and discharge pressure. For the compressors shown, as well as Model VFP, the crankcase pressure equalizer is a 1/4-in. o. d. tube; the oil equalizer is 1/2 in. o. d., and the discharge pressure equalizer must be the same tube diameter as the compressor discharge line to the condenser.

Equalizer lines for the P and R compressors should be 3/8 in. o. d. for crankcase pressure and 1/2 in. o. d. for oil. For the S compressor use a 5/8-in. o. d. equalizer for crankcase pressure and 1 1/8-in. o. d. oil equalizer tube. In all models, the discharge pressure equalizer must be same tube diameter as the compressor discharge tube.

It is essential that both compressors and the oil equalizer tube be on a common horizontal plane, Tecumseh points out.

Suction and liquid lines have to be of sufficient size for two units, the company also cautions.

Baldwin To Represent Reading In Md., D. C.

NEW YORK CITY—Reading Tube Corp.'s appointment of Hobart E. Baldwin as its representative in Maryland and the District of Columbia has been announced by J. F. Murray, sales manager.



H. E. Baldwin

Baldwin has been active in the plumbing and heating wholesale trade in the south and east for the past 30 years. He was associated with Stockham Valves & Fittings Co. and Grabler Mfg. Co. before establishing his own business as a manufacturer's representative in the southeastern area.

Refrigeration Equipment In New Wichita Quarters

KANSAS CITY, Mo.—Refrigeration Equipment Co. here, parts wholesaler, announced that its Wichita store was recently moved to larger quarters at 1641 E. First St. and that an open house was held there April 29-30.

There is ample parking space at the new location, it was indicated. The move is expected to help increase service to customers.

DuPont Names Three to Refrigerant Sales Force

WILMINGTON, Del.—Assignment of three new sales representatives to serve refrigeration wholesalers in the east and middle west was announced recently by the Du Pont Co.'s "Kinetic" Chemicals Div., manufacturer of "Freon" fluorinated hydrocarbon refrigerants.

James O. Wright, Jr., has been assigned to the territory including Wisconsin, North and South Dakota, Minnesota, Iowa, and eastern Nebraska, with headquarters in Minneapolis, Minn.

Conde B. Keogh will handle refrigerant sales in the New England and eastern New York district, with headquarters in Albany, N. Y.

Aubrey E. Fulford has been assigned to South Carolina, Florida, and southeastern Georgia, with headquarters in Jacksonville, Fla.

Wright attended the University of Maryland and was graduated from Temple university in 1939 with a Bachelor of Science degree in Commerce.

He served as a lieutenant (jg) aboard a Navy ship in the Pacific Theatre during World War II, and was business promotion representative of Elliott Brothers Trucking Co., Inc., Easton, Md., and terminal manager of Bell Lines, Inc., at Winston-Salem, N. C., before joining the Du Pont Co.'s Engineering Dept. late in 1950.

Keogh is a graduate of Iona college, from which he obtained a Bachelor of Arts degree in 1949.

He served four years in the Navy during World War II as a boat-swain's mate and naval aviator and joined Du Pont in 1950 as an expeditor in its Engineering Dept.

Fulford was graduated from the University of Alabama in 1949 with a Bachelor of Science degree in Commerce. He served as bombardier in the U. S. Air Force during the last war and began his Du Pont employment as an expeditor in the Engineering Dept. in 1951.

American Potash Corp. Names Dr. A. J. Dirksen

LOS ANGELES—Dr. A. J. Dirksen has been appointed director of sales development for American Potash & Chemical Corp. states Peter Colefax, president of the company.

Dirksen, who joined American Potash & Chemical Corp. early in 1953, has been acting as eastern representative of the company's sales development department. With his new duties, he will be responsible for planning and carrying out the corporation's sales development and market research program under the direction of Daniel S. Dinsmoor, vice president in charge of Research and Development.

INSTALL IN PAIRS

and get positive performance!



INSTALLED together, this popular A-P pair gives you both control and protection on all types of refrigeration and air-conditioning applications. It's the basis for economical, trouble-free positive performance. Always install A-P products and be positive of the results!



POSITIVE CONTROL

Model 207C Thermostatic Expansion Valve operates at any temperature . . . in any position

EXCLUSIVE A-P LIQUID CHARGE makes valve ideal for all applications . . . low temperature, commercial or air-conditioning. Versatility means fewer valves to buy.

MAINTAINS "STRAIGHT-LINE" SUPERHEAT—less than 1/2° superheat variation from -20° to +40°F suction temperatures.

AVAILABLE WITH OR WITHOUT EXTERNAL EQUALIZER—for popular Freon 12, Freon 22 and Methyl Chloride . . . in 1/2 and 1-lb. sizes.

NEW SMALL SIZE PLUS EASE OF INSTALLATION make it a real boon to servicemen. Fits handily in those hard-to-get-at corners.



POSITIVE PROTECTION

Model 410 Trap-Dri—with PA-400 refrigeration gel added—absorbs more water than ever!

PA-400 refrigeration silica gel reduces moisture level of F12 to less than 10 ppm, at temperatures as high as 160°F. Gel is non-dusting . . . completely non-corrosive. Is not affected by oil in system.

operates on "depth filtration" principle—removes gummy deposits, sludge, scale, dirt, solder.

Assures 100% trouble-free valve operation . . . prevents valve freeze-ups.

Positive-acting honey comb filter



DEPENDABLE Controls

For Air • Liquids • Gases • Refrigerants

Write for complete data
A-P CONTROLS CORPORATION

2460 N. 32nd Street, Milwaukee 45, Wisconsin
In Canada: A-P Controls Corp., Ltd., Cookville, Ontario

Announcing... New Paragon

TPT Time Pressure Temperature

de-frost-it with remote control

100% Fail Safe

HERE'S big news! TPT de-frost-it actually "thinks" for itself in assuring positive defrost cycles. Completely flexible; 1 to 8 defrost cycles per day. Can be installed to terminate defrost cycle at any pressure or any temperature. Once set, defrost is completely automatic. Length of

on hot gas or reverse cycle electric heat or compressor shut down defrosting.

defrost is self-adjusting for varying loads and atmospheric conditions.

Saves worry about costly food spoilage . . . ends call-backs for re-setting . . . makes any low temperature or normal refrigeration system you sell perform better! Write Dept. 1687 for more data.

TWO MODELS: TPT-303 (Hot Gas) • TPT-305 (Electric Heat)

Only Paragon TPT "de-frost-it" gives you all these great features

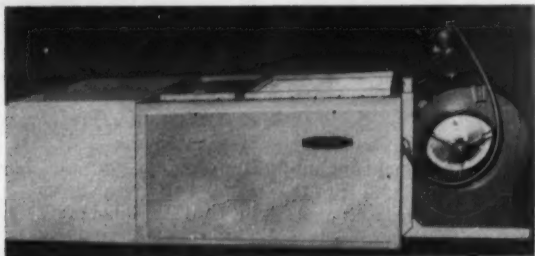
- AUTOMATIC DEFROSTING**—Time dial starts defrost cycle; preset rise in Pressure or Temperature terminates defrost cycle.
- 100% FAIL-SAFE PROTECTION**—Exclusive! 45-minute termination dial setting:
 - Protects against low ambient, gas shortage and low pressure.
 - Protects against failure of Pressure/Temperature cut-in switch, or improper defrost termination setting.
- Immediate transfer from defrost to refrigeration if Pressure/Temperature are too high at start of defrost cycle.
- Pressure/Temperature terminated if clock stops at exact instant defrost cycle starts, or any time during defrost cycle.

- REMOTE CONTROL**—install the TPT in any convenient location and connect the Pressure/Temperature cut-in switch with a single pair of wires.
- HEAVY-DUTY Telechron Motor**—long-life, industrial type.
- AUTOMATICALLY REDUCES COMPRESSOR DOWN TIME.**
 - May be top connected. Ample wiring gutter on side and bottom.
 - Defrost cycle may be manually started at any time with automatic termination.
 - Auxiliary contact for evaporator fan.

PARAGON ELECTRIC COMPANY
TWO RIVERS, WISCONSIN

What's New

When requesting further information on new products, please use "Information Center" form.



York-Shipley Producing 1 1/2-Hp. Air Conditioner

—KEY NO. D-510—

YORK, Pa.—An air conditioning system for small homes, featuring an air-cooled condensing unit with hermetically sealed refrigeration system, has been announced by C. A. Neiman, vice president in charge of engineering for York-Shipley, Inc. here.

A 1 1/2-hp. unit, using "Freon-12," the York-Shipley "Homeaire" will cool a space up to 1,000 sq. ft., the size of the average six-room home, the company said.

The unit is made in three parts with the center section devoted to the refrigerant circuit and evaporator section. One end section includes the fan for circulating the cool air and the other end section

the fan for handling the condenser cooling air.

The unit measures 19 in. high, 25 in. deep, and 69 in. long so that it can be installed in any waste space section such as attics, basements, crawl spaces, or closets.

Neiman said that more than one unit can be installed in a large home, where necessary, to give a zone cooling effect. He said that hundreds of field test installations were made last year to gain complete information on adaptability and serviceability.

Production of the new equipment is now under way and distribution is being made through regular channels and direct to builders on large orders, the company stated.



H. K. BENTZ, left, vice president in charge of Mfg. and Austin Rising, vice president in charge of sales for O. A. Sutton Corp. inspect Vornado's 150WAC 1 1/2 hp. self contained window unit, designed to cool a 1,000-sq. ft. area under normal conditions.

1 1/2-Hp. Window Conditioner Added To Vornado Line

—KEY NO. D-511—

WICHITA, Kan.—A 1 1/2-hp. self-contained window air conditioner, capable of cooling an area up to 1,000 sq. ft., has been added to the 1954 Vornado line, the O. A. Sutton Corp. here announced recently.

Using Vornado's vortex circulation principles, air is directed into the room at 1,400 f.p.m. velocity through three air circulators. The circulators rotate 360°, tilt up or down, and cause the air to completely circulate throughout large areas without creating drafts.

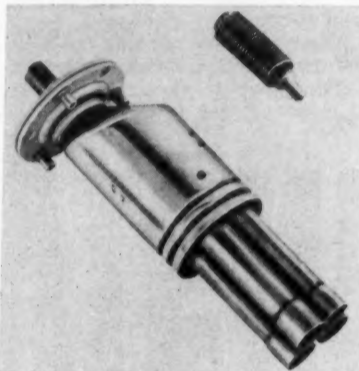
A pushbutton control system is

standard equipment on the unit. Exhaust and damper doors are controlled by electric solenoids.

The 1 1/2-hp. unit, known as the 150 WAC, is capable of removing up to 13 1/2 gals. of water from the air in a 24-hour period. All air passing through the unit is filtered for elimination of dust, dirt, or pollen particles in the air.

Seven different window air conditioners are included in the 1954 Vornado line. They range in size from the 1/2-hp. to 1 1/2-hp. units. All incorporate Vornado's vortex circulation principles.

4-Way Valve Reverses Flow In Room Coolers



—KEY NO. D-512—

BRIDGEPORT, Conn.—A hermetically-sealed, manually-operated four-way reverse flow valve has been developed by the Bridgeport Thermostat Div. of Robertshaw-Fulton Controls Co. for use in window-type air conditioning units, it was announced by A. D. Rapuano, vice president and general manager of the division.

These valves, designed for use in 3/4-ton and 1-ton heat pump units, are now in production.

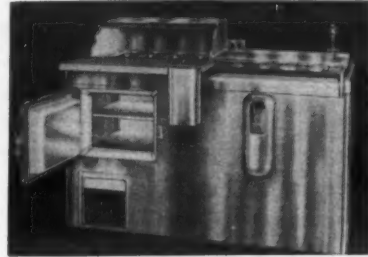
Installed in the heat pump, the new valve acts to reverse the flow of the refrigerant, causing the

appliance to throw off heated air instead of cooled air, or vice versa.

They are of compact construction, measuring approximately 1 3/4 in. by 5 3/4 in., including the connecting tubes. It weighs 14 oz.

According to Rapuano, whose plant manufactures all types of bellows and bellows assemblies used in control devices, the valves are of all metal construction and contain no packing or synthetic materials which may cause clogging or leaks.

Their installation, he said, forms a complete hermetically-sealed system that is capable of reversing its direction without restriction or loss of flow. A two-ply beryllium copper bellows is used in the valve as a packing seal.



'Packaged Restaurant' Introduced by Howard

—KEY NO. D-513—

PHILADELPHIA — A new "packaged restaurant" — a Bain-Marie that combines sandwich unit, refrigerator, beverage cooler, and water-dispenser into a self-contained stainless steel unit—has been introduced by Howard Refrigerator Co., Inc. here.

The company said the new Bain-Marie measures only 60 in. by 25 1/2 in. by 42 in. and packs into 10 sq. ft. of floor space the following features "for the first time":

Plug-in operation, "with only an inexpensive simple drain for installation."

A refrigerated storage unit with push-back cover and 8 refrigerated trays for salads and cold cuts, plus bread and dressings. A sturdy, hard maple wooden carving and sandwich board.

A 4-cu. ft. refrigerator compartment.

Detachable stainless steel garbage container. Two electrical outlets with space for toaster, grill, etc.

Push-back chrome water dispenser, with a continuous supply of cold water from a "unique" refrigerated stainless steel exchanger.

Refrigerated beverage cooler holding 10 cases of 12-oz. bottles (or 14 cases of 6-oz. bottles).

Glass chiller.

One-third-horsepower hermetically-sealed Tecumseh unit, 110/115 volts, 60 cycle a.c. Unit pulls out for easy servicing, according to Howard.

Temprite



WITH THE
DEEP
STAINLESS STEEL
TOP

EVERYTHING about the beautiful Temprite Water Cooler is generous, substantial, sturdy! The sanitary stainless steel top is extra deep... the anti-splash guard extra full... The flow of cool water won't splash, won't spurt, won't find its way on to the surrounding floor!

Dismantle the Temprite, if you wish; look inside and you will see the fully corrosion resistant cooling system, the extra strong all-welded steel frame, and heavy gauge sheet steel cabinet panels. Built for years of service. The compressor is hermetically sealed and lubricated for life. Everything about the Temprite line spells EXTRA QUALITY!



Pressure Bubbler Coolers in Nine Models.



Bottle Coolers in standard or compartment type.



Bubbler type compartment coolers



Remote type coolers in three sizes.



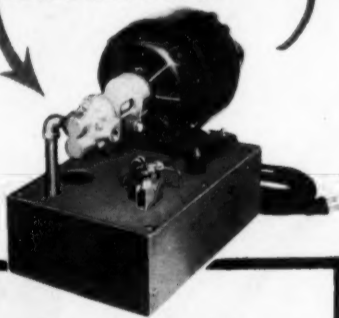
Temprite accessories include wall fountains, glass fillers, transformers, optional push-button control assembly, etc.

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PRODUCTS CORPORATION

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New HIGH-PRESSURE CONDENSATE DISPOSAL UNIT

designed to eliminate pumping water to sewer drain-line



\$7450 complete—to contractors F.O.B. Dallas*

- 1/2 H.P. Motor
- Hot-dipped galvanized tank

EXCLUSIVE FEATURE: condensate accumulating in tank is pumped against 100 lbs. pressure of condenser water-line through check valve directly in condenser water-line at air conditioning unit, thence to cooling tower.

*Or order from jobber

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What's New (Con't)

100 Wordings Available on Seton Name Plates



KEY NO. D-514

NEW HAVEN, Conn.—Air conditioning and refrigeration name plates with such words as "Compressor No. 1"; "Cooling Tower Fan"; "Evaporative Condenser Pump," etc., are now available from the Seton Name Plate Co. here.

The aluminum name plates are especially designed and manufactured to meet the needs of all those connected with construction and service work in the air conditioning and refrigeration industry. They have use by contractors to meet refrigeration code and electrical code requirements.

The name plates are 2½ by ¾ in. with a black enamel finish and

raised natural aluminum letters and border. This size allows perfect fit on standard toggle switch plates and is also appropriate for air conditioning and refrigeration components including controls.

They are individually packaged in transparent envelopes and are simple to install. Each envelope contains one name plate and four plated screws. Two are self-tapping screws for use where fastening is to be made to sheet metal surfaces such as entrance switches or ductwork. Two are drive screws for use when fastening to castings or solid materials. Name plates can be furnished with a backing of pressure-sensitive tape instead of screws, if desired.

More than 100 standard refrigeration and air conditioning wordings are available for shipment from stock. No minimum orders are required. Details and samples are offered in Catalog A-54.

Westinghouse Offers Re-Designed 'Rancho' Range

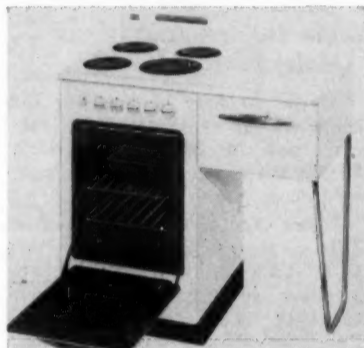
KEY NO. D-515

MANSFIELD, Ohio—A completely re-designed "Rancho" model electric range was introduced recently by the Westinghouse Electric Appliance Div. to highlight the company's summer promotion on its full line of ranges.

Built as a campaign leader, the new Rancho, model JG, carries a suggested retail price of \$158.88, reports R. M. Beatty, manager of the electric range department. It is available now for national distribution.

The new range has the appearance of a knee-hole desk.

"It features four 'Corox' units for ample surface cooking capacity and a large work surface to



make food preparation and serving easier," Westinghouse said.

"The 'True-Temp' oven provides evenly balanced heat for roasting and baking and has a single dial oven control that turns on the current and sets the temperature at the same time. An oven signal light glows when current is being used.

"The range is also equipped with a convenient appliance outlet that can be used for all portable appliances.

"Everyday pots and pans can be stored in the waist-high storage drawer on the right side of the range. The handy tuck-away space below provides ample room to store the kitchen stool or wastebasket."

The Rancho augments the company's "salesmaker" line—consisting of the "Thirty" and the "Leader" at \$191.61 and the Commodore at \$229.91.



- Air Conditioning Units 1½-20 tons
- Multi-Packaged Systems Up to 60 tons
- Prop-R-Temp Heat Pumps 2-20 tons
- Evaporative Condensers
- Packaged Water Chillers

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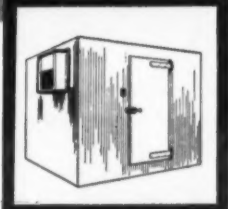
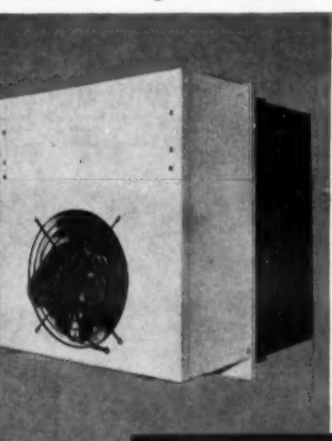
Your Clue to Quality in Walk-In Coolers

No cooler is better than its cooling system—but when you see the name KOOL-RITE on a refrigeration unit, you can be sure of dependable, money-saving performance.

Famous for long-run service without costly breakdowns, KOOL-RITE units meet the requirements of any walk-in cooler made today, heavy or light duty.

This unit has high and low side (complete with evaporator and compressor) mounted on a single panel for ease of installation. Precision control of air flow prevents dehydration. Careful factory testing assures peak efficiency. Self-contained—easy to service.

KOOL-RITE refrigeration units



KOOL-RITE CO.

a subsidiary of
Erickson Industries, Inc. • Roberts, Wis.

Like hundreds of other satisfied buyers, be sure you have the best in cooler performance and savings—specify KOOL-RITE.

Eston Introduces 6-Can 'Charg-A-Can' Container



KEY NO. D-516

LOS ANGELES—The Aerosols & Refrigerants (Eston Chemicals) Div. of American Potash & Chemical Corp. has introduced a six-can "Handi-Pak" container for its "Charg-A-Can" disposable refrig-

erant containers.

Similar to the six-pack carrying containers used extensively by beverage companies and other manufacturers, the package is finding its first use in the chemical industry by Eston, according to the company.

Notable points of the carrying carton are that it results in higher efficiency of storing of Charg-A-Cans, and provides a convenient and easy-to-handle carrier for the refrigerant serviceman, the company said.

American Potash & Chemical is currently packaging three refrigerants—"Freon-12," "Freon-114," and sulphur dioxide—in the disposable pressure containers.

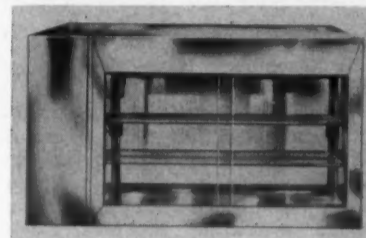
Lern Introduces New 'Sell-erator' Model

KEY NO. D-517

CHICAGO—A new model of the "Sell-erator"—self-contained, refrigerated, illuminated display case—has been introduced to the drug and restaurant equipment trade by Lern, Inc. here.

This new "pass-thru" case has been especially designed for industrial and public cafeterias and restaurants with island-type counters. It has sliding glass doors in front and rear, which facilitate fast self-serving of customers and easy load by attendant, according to the manufacturer.

The "Sell-erator," 48 in. long by



26½ in. high by 20 in. deep, is portable and plugs in anywhere. It is constructed of stainless steel inside and out, has adjustable shelves, and is thermostatically controlled. It operates on 110-115 volts a.c.

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against moisture, dirt,
leakage and noise!

No. 683 Solenoid Valve With Built-In Strainer In All Models

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- Plastic-impregnated waterproof coil.
- Quiet operation—no A.C. hum.
- Rugged forged brass body.
- Connections available for flare, sweat or pipe thread applications.
- Sturdy mounting boss.



683 in forged brass body available with either flare (¾" S.A.E. for ¾" x ¼" reducing nut) or sweat (¾" or ½" O.D.) connections.



Barrel type internal strainer supplied with sweat and pipe thread models.



683 also available in cast brass body with ¾" female N.P.T. inlet and outlet connections.

Other Detroit Solenoids for Capacities To 50 Tons F-12



No. 681
Capacities to 2.7 Tons F-12



No. 685
Capacities to 20.4 Tons F-12



No. 689
Capacities to 50 Tons F-12



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Load Calculations—3

Air Force Conference Gets Detailed Review of Load Estimating For Typical Synthetic Flight Trainer Building

Editor's Note: This is the third in a series of articles presenting the papers given at the recent Refrigeration & Air Conditioning Engineers' Conference held by Headquarters, United States Air Force, at the Pentagon in Washington, D. C.

As arranged by Conference Director Wm. T. Smith of the U.S.A.F. Directorate of Installations, four industry representatives performed and explained the engineering and installation (on paper) of cooling equipment for a typical Air Force structure—a synthetic flight trainer building.

Following is the third and final instalment of the first of four papers given on the subject.

By James H. Carpenter, Director, Engineering Training Department, Carrier Corp.

To illustrate principles of designing air conditioning systems, the plan for a typical synthetic trainer building was developed by the Air Force Directorate of Installations for this conference. The plan for the building is shown in the accompanying drawing. Over-all dimensions of the one-story building are 175 ft. by 70 ft.

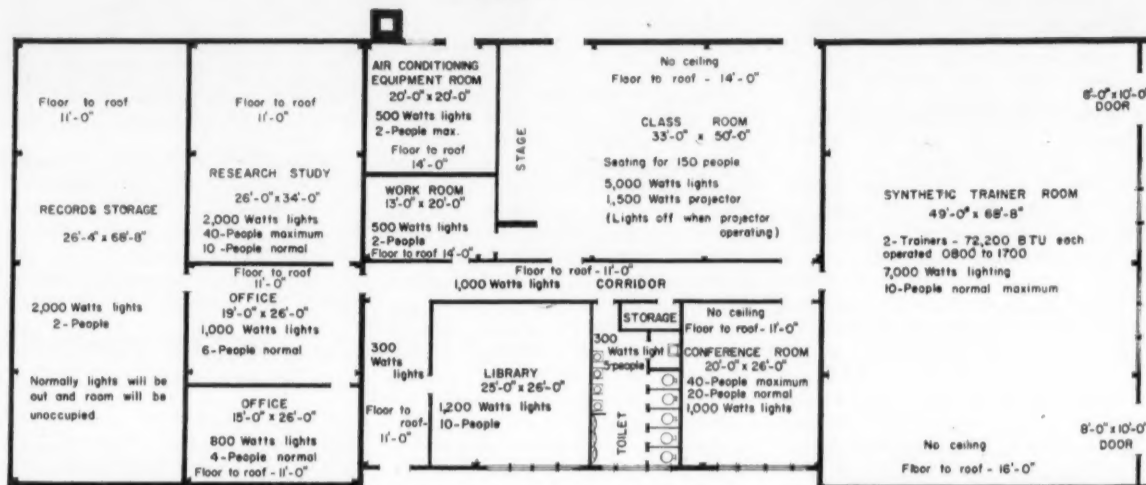
The calculations for this building are based on outside design conditions of 95° dry bulb and 78° wet bulb, and the inside design conditions are to be 80° d.b. and 67° w.b., which is equivalent to 50% relative humidity.

The building is assumed to be

located at 30° N. latitude and is oriented so that the long way of the building is east and west, with the machinery room side facing north.

Floor is concrete slab on grade. Roof consists of 3-in. concrete slab and 2 in. of rigid insulation and is covered with roofing. There are no suspended ceilings. Exterior walls are 8-in. concrete block painted, as are the interior walls.

Little glass is employed in the design. Glass shown in the synthetic trainer room is 30 in. high; that in the conference room is 60 in. high. No awnings or shading devices are provided for windows.



TYPICAL synthetic flight trainer building as used by the United States Air Force presents a considerable sensible and latent load combination. How the load was calculated is explained in accompanying article.

All occupied spaces are to be air conditioned. Descriptions of the rooms and the nature of the load in each are as follows:

Room No. 1, the synthetic trainer room proper, measures 49 ft. by 68 ft. 8 in. Floor to roof distance is 16 ft. This room has 7,000 watts of lighting and has a

normal maximum occupancy of 10 people. Glass area totals approximately 30 ft. by 30 in.

Flight Trainers Are Major Source of Load

Major sources of load in this room are the synthetic flight trainers, each of which is rated at 72,200 B.t.u. per hr. and is operated from 8 a.m. to 5 p.m.

Room No. 2 is the classroom. This measures 33 by 50 ft. with a 14-ft. floor to roof distance, and provides seating for 150 people. Lighting load totals 5,000 watts. There is also a 1,500-watt projector, but when the projector is operating the lights are off.

Room No. 3 is the conference room, which is 20 by 26 ft. Floor to roof distance is 11 ft. It has 1,000 watts of lights and has a normal occupancy of 20 people and a maximum of 40.

Room No. 4 is the library. This 26 by 25-ft. room has an occupancy of 10 people and has 1,200 watts lighting load.

Room No. 5 is an office measuring 15 ft. by 26 ft. Normal occupancy is four people and the light load is 800 watts.

Room No. 6 is another office. This is 19 by 26 ft.; is normally occupied by six people, and has 1,000 watts of lighting.

Room No. 7 is a work room 13 by 20 ft. in size with 500 watts in lights and an occupancy of two people.

Room No. 8, which is used for research study, measures 26 by 34

ft. It has 2,000 watts of lighting. Normal occupancy is 10 people; 40 is maximum.

Room No. 9 measuring 26 ft. 4 in. by 68 ft. 8 in. is employed for storage of records. Although the room has 2,000 watts of lights and may be occupied by two people, normally the lights are out and the room is unoccupied.

Also provided in the building is an air conditioning equipment room 20 by 20 ft. in size, toilet, and corridors.

Determining Capacity Of System

To determine the capacity of the system to be installed it is first necessary to establish the time of the peak load on the building. If we assume that time as 3 p.m. sun time, we find that the roof load and outside air temperature peak at this time. The east and south walls are also near their peak at 3 p.m.

The occupancy as listed is assumed to exist any time during the hours of 8 a.m. and 5 p.m., and the lights and the synthetic flight trainers are likewise assumed to be in use during that period.

Next step is to make a cooling estimate for each of the occupied spaces to be air conditioned. Shown in Fig. 7 is the estimate for a typical room, in this case the classroom (Room No. 2).

Design conditions are:

Outside: 95° d.b., 78° w.b. with 118 grains of moisture per lb. of air.

(Concluded on next page)

usAIRco

Packaged air conditioners cool Seascape "Motels within a Motel"



6 usAIRco packaged air conditioners, self-contained water cooled units, cool the five individual guest buildings plus lobby and coffee shop of the Seascape Motel, Miami Beach, Florida. One 7½ hp. unit is located in each of the 10-room guest buildings, while one 7½ hp. conditioner cools the lobby and coffee shop.

usAIRco's unusually flexible packaged air conditioner cleans, cools and dehumidifies the air. The assemblage consists of three component sections—conditioner, blower and plenum permitting rearrangement in the field to fit any problem. All three sections bolt together easily with rubber gasket to insure airtight seal. Spring mounting insures noise-free compressor operation. The central control panel simply flips down to give convenient access to every control.

The cabinet is a handsome modern design of 2-tone baked enamel hammerloid finish with rugged angle iron frame construction, entirely bonderized for longer life. The usAIRco packaged air conditioner occupies little floor space and comes complete with internal water piping, ready for connection to city water supply or cooling tower. The compressor motor is warranted for five years. All other parts carry a one year warranty.

By adding a heating coil, the unit provides effective year 'round air conditioning. The usAIRco packaged air conditioner is easily installed, with or without ductwork. In 6 sizes, from 2 to 15 hp., the unit is the ideal application for motels, offices, theaters, stores, beauty shops and restaurants. Contractor for the Seascape installation was George Winston Construction Co. Air Conditioning Contractor was Airco Air Conditioning Co. of Miami Beach.

For complete descriptive Bulletin 77-5 write Dept. AC54

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Lausteel variable speed pulleys are available in three standard bores, ½"–¾" and ¾". They allow speed variations up to 30%, thus assuring noiseless, efficient operation for many drive combinations.

Write for Catalog Page 707-13

THE LAU BLOWER COMPANY
DAYTON 7, OHIO

World's Largest Manufacturers of Air Conditioning Blowers

COOLING ESTIMATE

SHEET NO. 2
ESTIMATED BY J.H.C.

PROPORTION NO. USAF-TC-54
ORIGINAL DATE 12/10/53

JOB NAME SYNTHETIC TRAINER BLDG.
ADDRESS Room No. 2
SPACE USED FOR CLASS ROOM
SIZE 33' x 50' = 1650 sq ft x 14' = 23,100 c.c.

Item	Quantity	Difference	Factor	Btu per hr
SUNLIGHT GAIN				
W Glass	sq ft x F x			
S Glass	sq ft x F x			
N Glass	sq ft x F x			
E Glass	sq ft x F x			
Skylight	sq ft x F x			
Roof	1650 sq ft x 56 F x	.14		13,000
TRANSMISSION GAIN				
All Glass	sq ft x F x			
W Wall	sq ft x F x			
S Wall	sq ft x F x			
N Wall	700 sq ft x 3 F x	.41		860
E Wall	sq ft x F x			
Partition	280 sq ft x 10 F x	.41		1,150
Ceiling	sq ft x F x			
Floor	sq ft x F x			
INFILTRATION AND OUTSIDE AIR				
Infiltration	cfm x			
Outside Air	cfm x			
INTERNAL HEAT				
People	150 People x			29,300
Light	sq ft x			
Lights	5000 Watts x	3.4		17,000
ROOM SENSIBLE HEAT SUB-TOTAL				
Sensible	sq ft x			67,310
ROOM LATENT HEAT				
Infiltration	cfm x			
Outside Air	cfm x			
People	150 People x			23,300
Stream	x			
ROOM LATENT HEAT SUB-TOTAL				
Latent	sq ft x			1,200
ROOM TOTAL HEAT				
Total	sq ft x			24,500
OUTSIDE AIR HEAT				
Sensible	cfm x			
Latent	cfm x			
GRAND TOTAL HEAT				
Total	cfm x			24,500

SENS. HEAT FACTOR = 1.0
INDICATED APP. DP = 53 F. SELECTED APP. DP = 53 F.

2041-10-Heating, Piping and Air Conditioning Contractors National Association.

FIG. 7 shows how load for a typical room in synthetic flight trainer building is figured on Cooling Estimate Form.

Load Estimating System--

(Concluded from preceding page)
Inside: 80° d.b., 67° w.b., 50% r.h., or 77 grains of moisture per lb.

This means differences of 15° d.b. and 41 gr. per lb.

The heat gains in B.t.u. per hour are as follows for this room:
Sunlight gain through roof: 13,000.

Transmission gain through north wall: 860.

Transmission through partition: 1,150.

People: 29,300.

Lights: 17,000.

Adding 15% (for duct heat gain, duct leakage loss, and fan horsepower) to the total of the above figures gives a room sensible heat of 70,510 B.t.u. per hour.

Room latent heat is 23,300 B.t.u. per hour plus 5% duct leakage loss gives a room latent heat total of 24,500 B.t.u. for a total room heat (sensible plus latent) of 95,010.

The Sensible Heat Factor, i.e., ratio of sensible to total heat, is .74.

'Apparatus Dewpoint'

This indicates that the "Apparatus Dewpoint" or mean coil surface temperature should be 53° F., and this figure was selected.

With this 53° F. Apparatus Dewpoint and an assumed "by-

pass factor" of .1, the dehumidified air temperature rise becomes 24.3. This means a total of 2,690 c.f.m. of air at these conditions must be supplied to Room No. 2, the classroom.

Shown in Table 7 is the summary of the cooling loads for each of the nine rooms in the trainer building. All were figured in the same manner as Room No. 2 above.

From this table it is seen that the maximum total load is 296,340 B.t.u. per hour, of which the maximum sensible load totals 249,950 B.t.u.

This table also shows that a total of 9,425 c.f.m. will be required for the job.

Room 2 Selected As Key Room

It will be noted in the column of Table 7 headed "Ind. Adp." that Room No. 2, the classroom, has the lowest "indicated apparatus dewpoint"—53°. This, then, is the "key" room because the central system must be selected to supply the minimum apparatus dewpoint. If the central system meets the requirements of this room, then the other rooms are automatically taken care of.

Quantity of air needed for all the rooms is based on the 53° F. coil temperature. This will result

Table 7—Cooling Load Estimate Summary
Synthetic Trainer Building

Room No.	Room Loads, B.t.u./hr.				Ind. Adp.	Dehum. C.f.m.*	Max. Deg. Reheat	Temp. Lvg. Reheat
	Max. Sen.	Max. Total	Min. Sen.	Var. Sen.				
1	54,110	56,260	.....	.....	59.5	2,060	.....	.....
2	70,510	95,010	17,270	53,250	53.0	2,690	18.4	74.1
3	23,150	29,650	10,250	12,900	56.0	870	13.4	69.1
4	18,070	19,700	.....	.....	58.5	610	.....	.....
5	10,160	11,020	.....	.....	59.0	375	.....	.....
6	9,700	10,990	.....	.....	58.0	370	.....	.....
7	6,950	7,380	.....	.....	59.0	265	.....	.....
8	26,900	35,500	19,170	6,730	55.0	1,025	6.07	61.8
9	30,400	30,830	.....	.....	59.5	1,160	.....	.....
Total	249,950	296,340	.....	.....	.....	9,425	.....	.....

*Based on 53 Adp., 80° room d.b. and 0.1 Bf.

in humidity conditions of slightly less than the design 50% r.h. in all the rooms except No. 2, the "key" room. Latter room will be held at the design 50% r.h.

In looking at Table 7 you will observe that the calculated load for room No. 1, which contains the synthetic trainers themselves, is given as a total of 56,260 B.t.u. per hour. Actually this includes merely the sunlight, transmission, and occupancy load, and does not take into account the flight trainers and lights.

This room has 7,000 watts lighting, which represents a load of 23,800 B.t.u. per hour. The two trainers, each of which is a load of 72,200 B.t.u. per hour, represent a total of 144,400 B.t.u. per hour. The light load combined with that of the trainers plus 5% added for fan horsepower gives a total load

of 176,200 B.t.u. per hour.

Cooling of this additional load in the synthetic trainer room is to be achieved by means of a supplementary air-handling unit delivering 6,750 c.f.m.

Before we can arrive at the total over-all load for the entire system, we must consider the outside air that will be required for ventilation. It is assumed that at any one time the building occupancy will probably not exceed 200 people, although the calculations do add up to 254 people.

From Table 4 listing ventilation standards, the recommended outside air for this application we find to be 15 c.f.m. per person. Multiplied by 200, this means 3,000 c.f.m. of outside air will be required for purposes of ventilation.

The next step is to calculate the ventilation load which when added

to the room load and supplemental unit requirement will give the required compressor capacity.

Since some rooms will be maintained at slightly less than 50% r.h. because they have higher sensible heat factors than the key room (No. 2), the weighted average condition of the return air was calculated.

It was found that the return air to the coil had an average specific humidity of 69.8 grs./lb. of dry air. The average return air temperature is assumed to be 80° F.

On this basis, the outside air must be cooled from 95° d.b. and 78° w.b. to the average room air conditions of 80° d.b. and 69.8 grs./lb., or:

Outside air sensible heat = 3,000 x 1.08 (95—80) = 48,600.

Outside air latent heat = 3,000 x .68 (118—69.8) = 98,500.

Total ventilation load, B.t.u./hr. = 147,100.

Now a load summary may be made as follows:

Room loads = 296,340

Outside air load = 147,100

Subtotal = 443,440

Supplemental unit (Trainer Room) = 176,200

Grand Total Load = 619,640

or 51.5 tons.

The data so far collected on the synthetic building will permit an analysis to be made regarding equipment selection.

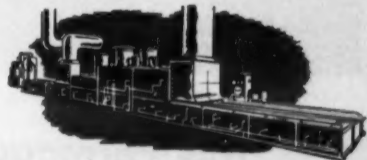
(To Be Continued)



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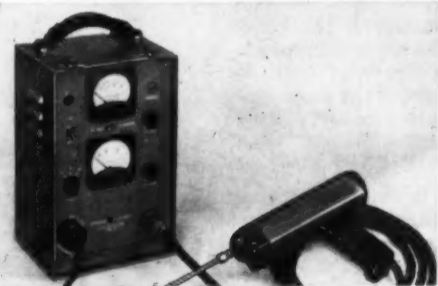
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Refrigeration Problems and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

How The Moisture Got In (2)

After Pete had finished his story, he took the motor he had been working on into the store-room and brought out another. When he got back to the bench, Al said, "Well, a fellow runs into some funny ones. Like I said, a fellow does several things on a job and sometimes it's hard to tell which one of the things he tried it was that fixed it."

"On that job you were talking about, though, you actually didn't do but a couple of things to stop moisture troubles. You stopped a leak and you put on a drier. Also, you opened the liquid line, and you put in some gas, but if you were careful, you shouldn't have let in any moisture then—at least not enough to show up right away like it did."

"So the way you tell it, that

moisture had to get into the unit through the leaking terminal plug."

MOISTURE LEAK INTO THE HIGH PRESSURE?

"Whoa!" interrupted Pete, "that is a Blank unit, and you know yourself that the compressor case is on the discharge side of the compressor, not on the suction side."

"The unit still had half a charge in it, so it still had plenty of pressure in it. Would have been down some, but it couldn't have had a vacuum on the high side. Gas was always leaking out around the terminal plug, so how could moisture get in with gas coming out all the time? No, that moisture couldn't have got in around the terminal plug."

"Yeah, I know it sounds crazy," replied Al, "but it seems to me I read some place that moisture can get in even against pressure."

"I've had moisture show up in open-type jobs that never operated on a vacuum. There was always

pressure on both the high side and the low side."

AL'S EXPERIENCE

"I remember one job in particular. It was a wall box in a restaurant and it had a coil in it like a household box, that made about a dozen trays of ice cubes. The low pressure control was set to cut off at about 10 lbs., so it never operated on a vacuum."

"The first time the expansion valve froze up, I didn't think so much about it. I checked it over for leaks and couldn't find one. I took the valve off and examined it. There was no evidence of wax, so I washed it out with methyl alcohol and put it back on. It was down about a couple of pounds of refrigerant, so I put in some and put on a new drier."

"About six months later, the same thing happened. That time I really went over that job, but I still couldn't find anything. There was a little oil around the seal, but no leak at the seal."

"I washed out the valve with alcohol again, changed the drier and added a couple of pounds of refrigerant and everything was o.k. for another six months. By this time the restaurant man was beginning to get sarcastic, so I decided I'd give it the works."

"I really checked that job over for leaks, but I couldn't find even a little one. Same old thing—valve froze up and short a couple of pounds of gas."

"Now, I'm not one to change a seal just on suspicion, but this time I decided to put on a new one in spite of the fact that the torch didn't show a seal leak."

"Besides changing the seal, I washed out the valve again, changed the drier, and added about three pounds of gas. That did it. I have had no more trouble with that job because of freeze-up or short of gas. I had some motor trouble not long after that, but of course it didn't have anything to do with the moisture."

"I always figured that somehow that seal leaked when the compressor was running but not when it was idle. It's usually the other way around."

CAN MOISTURE ENTER AGAINST 10 LBS. PRESSURE?

"I figured too, that somehow moisture was pulled in, around the seal. It didn't make sense, for the suction was never down even to balance pressure, so how could moisture get in?"

"Pete," continued Al, "do you remember that physics professor that we met at the college when we were putting in that low temperature job for them? I got to talking to him and I found that he knows a lot about the theory of refrigeration."

"I wonder if he'd know if it is possible for moisture to get into a unit through a leak from which gas is coming out. It doesn't make sense for the moisture to be able to go in against the gas pressure, but, as I said, it seems to me I've heard or read somewhere that it can happen. Next time I get to see him, I'll ask him."

WHAT THE PROFESSOR SAID

A few weeks later, Al and Pete were out on an installation. They had all the equipment connected and were, in fact, pumping a vacuum preliminary to charging with refrigerant.

"You remember, Pete," said Al, "last month we were talking about the possibility of moisture getting into a unit against refrigerant pressure? Well, I saw the professor over at the university yesterday, and I asked him about it."

"I had to explain quite a bit, for of course he doesn't know much about refrigeration equipment. But he soon got the picture. You know, Pete, if that guy ever took up refrigeration, he'd be a whiz. Before he even learned how to connect up an expansion valve, he'd know a lot of the answers. With all the theory he knows, it sure wouldn't take him long to get enough experience to be a crackerjack serviceman."

"Anyway, here's what he said. He said that moisture (he called it water vapor) in the air is independent of the air. They both occupy the same place but they don't pay much attention to each other."

DALTON'S LAW EXPLAINS IT

"Same thing in the refrigeration unit. The moisture and the gas are pretty much independent of each other. Neither controls the other. He spoke of Dalton's Law, and that's the one talked about in the book on air conditioning that you and I were going to study but never got around to."

"He said that air and water vapor are all mixed together and that each has its own pressure separate from the other. He called the pressure of the moisture in the air 'vapor pressure.'"

"In the unit, it's the same thing. The gas has its pressure and the

water vapor, if there is any moisture in the unit, has its pressure too. He called each of these pressures a 'partial' pressure."

"Both are separate pressures, but when we put a gauge on the unit, we read both pressures added together or 'total pressure,' he called it. He said that the partial pressure of the moisture would always be less than a half pound, so you couldn't tell the difference on a gauge."

"If the unit is real dry, and doesn't have much moisture in it, the pressure of the moisture in the unit is very low. If the outside air is very damp and has a lot of water vapor in it, the vapor pressure of the moisture in the air is very high compared to the pressure of the moisture in the unit. According to the professor, the pressure of the moisture in the outside air might be a thousand times as much as the pressure of the moisture inside the unit."

"Naturally the high pressure of the outside moisture would cause the moisture to flow into the unit to the low pressure of the inside moisture, and the funny part is that according to him, the gas pressure and the outside air pressure wouldn't have anything to do with it one way or the other."

MOISTURE CAN ENTER AGAINST GAS PRESSURE

The moisture from the outside would flow 'upstream' against the gas coming out. Of course, if the gas were coming out at high velocity, I suppose it might make it hard for the moisture to get in, but for a small leak, the outside moisture would go right into the unit although refrigerant gas was coming out of the same hole."

"In your sister's refrigerator, the moisture was getting into the unit through that leaking terminal plug, even though at the same time gas was leaking out through that same loose terminal plug."

"In the case of my restaurant job, moisture was getting into the system one way through the seal, while at the same time gas was leaking out the other way through this same seal."

"So that settles that. And you know something Pete? You and I ought to get that book out and study it a little more. Here we have been going along wondering what the answers were when all the time they were right there in that Dalton's Law in the book."

"We kinda skipped over that pretty fast, for it didn't seem to be very practical. But it would sure have been mighty practical to us if we had understood it and could have figured out our two problems. Maybe we ought to find that book and study it a little harder this time."



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Permagem, which comes in 2½ lb. and 45 lb. slugs. This heavy-duty sealer will adhere to any dry surface and will never harden, staying plastic from 0° to 350°F. There is also gray-white Permagem, which comes in 80 ft. rolls of 3/16" cords, and 20 ft. rolls of 3/8" cords. It is odorless; it never hardens; it can be painted immediately. It is also ideal for sealing around wires, since it won't attack rubber insulation.

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Residential Air Conditioning

What Some Tests Showed . . .

Floor Outlets Give Better Air Distribution Than High Registers, Center Location Best

HOUSTON, Texas — Better distribution of air in year-round residential systems can be obtained with floor outlets than with high side wall registers, research at the University of Illinois indicates.

This and other conclusions were reached by H. F. Straub and S. F. Gilman, both associated with the mechanical engineering department of the university, as the result of research on a test room conducted with the cooperation of the American Gas Association.

Their findings were presented here at the 60th annual meeting of the American Society of Heating and Ventilating Engineers.

Other conclusions reached by the authors were:

MORE UNIFORM AIR MOTION

"Floor diffusers produced a more uniform air motion and a lower temperature variation during heating than floor registers. Diffusers were especially effective in the unrestricted location near the center of the exposed wall.

"With floor outlets and winter heating conditions of operation, an increase in supply-air velocity produced only a slight improvement in air distribution. However, an increase in flow rate, with a subsequent low supply-air temperature, resulted in a significant improvement. With a high side wall outlet, either an increase in the supply-air velocity or the flow rate produced a significant improvement.

"The best air distribution during cooling was obtained with outlets located near the center of the exposed wall. Under these conditions good air distribution was obtained with a temperature differential as large as 20° F.

HIGHER VELOCITY NEED WITH FLOOR DIFFUSERS

"To obtain optimum air distribution during cooling, a higher supply-air velocity was required with floor diffusers than with floor registers.

"For the simulated crawl-space conditions, the floor surface temperature was much lower and the temperature variation somewhat higher than those obtained under comparable heated-basement conditions.

"Storm sash installed on the windows obtained only slight improvement in the air distribution.

"Results obtained during isothermal studies cannot generally be interpreted as predictions of the air motion in a room under winter heating or summer cooling conditions of operation.

"A floor outlet located at the center of an exposed wall has excellent possibilities of providing good air distribution during year-round air conditioning, particularly if the flow rate used during summer cooling is also used during winter heating."

The tests were conducted in a room 13 3/4 ft. wide by 18 ft. long with an 8 1/2-ft. ceiling, which is surrounded by an insulated structure forming corridors along the north and east walls of the room.

Temperatures can be controlled over a range of -10° to 130° F. in the outside corridors, basement space, and attic space to simulate actual operating conditions of a typical room in a residence, the authors explained.

Janitrol Names C. C. Owen Assistant Sales Manager For Western Division

COLUMBUS, Ohio — Appointment of Charles C. Owen as assistant sales manager for the western division of Janitrol heating and air conditioning Div. of Surface Combustion Corp. was announced recently by Harry C. Gurney, Janitrol Div. sales manager.

In his new post, Owen will supervise the sales activity for the complete Janitrol line of residential heating and cooling equipment and industrial gas-fired unit heaters.

A native of Oklahoma, Owen was graduated from high school in Muskogee and received his degree in commercial engineering from the University of Cincinnati in 1928. For a number of years, he was associated with Cincinnati Gas and Electric Co. as a salesman and supervisor.

He joined Surface Combustion in 1936 as manager of the firm's Cincinnati district office. In 1941 he was transferred to Toledo where he assisted with subcontract work for Surface Combustion and in the development of the Janitrol aircraft heating products.

Following the war, in 1945, Owen resumed his duties as manager of the Janitrol district office in Cincinnati. In 1949 he was appointed to supervise sales training activity for the Janitrol Heating & Air Conditioning Div. and in 1950 was named sales promotion manager.

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Seay Named Ad Head for Westinghouse A. C. Div.

HYDE PARK, Mass. — E. W. Seay has been appointed manager of advertising and sales promotion for the new Air Conditioning Div. of the Westinghouse Electric Corp. The announcement was made here recently by W. B. Cott, sales manager, to whom Seay will report.



E. W. Seay

A native of Glens Falls, N. Y., Seay was educated at Albany Academy and at Williams college, where he was graduated in 1939. He served for a year on the staff of Radio City Music Hall Corp. in New York City, and from 1940 to 1941 as a salesman with Transit Displays, Inc.

He joined Westinghouse on the graduate student course in 1941, and was a member of the New York sales staff until 1948, when he joined the sales promotion department.

In 1950, he was made manager of the New York sales promotion office, and in 1953 became manager of sales promotion for the northeastern region of Westinghouse, from which position he comes to serve the Air Conditioning Division.

Worthington To Introduce Home Heat-Cooling Unit

HARRISON, N. J. — A new home air conditioner designed to provide both cooling and heating in one compact unit will be introduced to the public by Worthington Corp. at the National Indoor Comfort Exposition in Philadelphia, May 16-20.

Worthington's new unit will provide heating, cooling, dehumidification, filtering, ventilation, and air circulation. Year-round control of the unit will be accomplished by one-point control, from a centrally located thermostat.

Boasting the latest in design and engineering features, the unit requires less floor space than any other 2 or 3-ton heating and cooling unit on the market today, the company claims. It is finished in beige semi-gloss enamel and can be installed in any type of house and in any part of the house. It will fit through any standard 30 in. doorway.

The year-round home air conditioner will be offered in 2 and 3-hp. sizes with either a gas-fired or oil-fired furnace. The entire unit is thermally and acoustically insulated with aluminum-faced glass fiber.

The heart of the cooling system is Worthington's hermetically sealed unit designed for vibrationless, trouble-free operation. Other features include a furnace heat ex-

changer that is ceramically coated for corrosion resistance and added quietness.

The entire cooling section fits into the bottom of the cabinet and can slide in or out for easy access.

Coleman Starts Pre-Season Air Conditioning Drive

WICHITA, Kan. — To encourage homeowners to get the jump on the hot weather demand for air conditioning, the Coleman Co. has launched a "beat the heat" drive by direct mail. A pre-season discount up to \$325 is offered for converting existing Coleman "Blend-Air" home heating systems to year-round air conditioning.

The drive is being featured by a series of five letters, one posted every other week, from President Sheldon Coleman to thousands of present owners of Blend-Air heating systems.

The same 3 1/2-in. pipes and outlets used for circulating warm air in winter, it was pointed out, are used for cool air in summer and the cooling unit may be installed on top of the furnace without taking any additional space on the floor.

The drive is in line with market studies showing that the greatest potential for future home air conditioning sales lies in the field of existing homes rather than new homes.

Use this

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"Reminder Service Plan"*

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Why Not Change Parts of Hermetic Systems?

Part 2 of a Three-Part Article Which Gives History of the Problem and Offers an Example of How It Has Been Done

By John E. Unger, Service Manager, The Coolerator Co.

Why not change parts of hermetic systems?

But, where would we find the person or persons that could change the parts in the hermetic systems? Let's take a look and see just what happened to the refrigeration service engineer during the period of the package and the hermetic unitary system when these were all being returned to the manufacturers or being returned to the manufacturers service shops throughout the United States.

There wasn't much that the refrigeration service engineer could do in his line of work on household refrigerators, except change relay, overload, or thermostat, so naturally, he transferred most of his efforts to commercial, where the field was still open and he was allowed to change a component part of a system that went bad.

Who, then, did the work on the unitary package system? I can remember case after case of this type of system coming back to the factory wherein only the relay was defective or maybe even the overload and at times I have even seen a system which would operate perfectly in all respects and one

then could conclude that the thermostat may have been defective, and that the man making the analysis was not experienced.

Why the Systems Went Back

Of course, it was not unusual that we should get this type of a system back to the factory because the person that was analyzing the problem with the refrigerator was one of the boys out of the shipping department, who knew what a screwdriver looked like and he could read the model and serial number, so the boss said, "take out a new system to Mrs. Jones, bring the old system back in here and we will ship it back to the factory, as Mrs. Jones says that her refrigerator is not operating properly, and she probably knows more how it operates than we do."

I wonder whether anyone would hazard a guess on the amount of money that had to be tied up because of this loaner or exchange units procedure.

Later on, as refrigeration progressed, the customer changed the well laid plans and insisted that one of the refrigeration products he needed in his home was a

freezer, either chest or upright, and later, a room air conditioner.

Becomes More Expensive

This, then, presented quite a problem. The manufacturer could arrange his design so that the compressor, condenser, and the evaporator of the freezer could be removed as one unit and shipped back to the factory or to their service station for repair. But, freight rates were now increasing quite a bit and service expense would rise.

Sure, we are all making a better product qualitywise today, but why spend money unnecessarily and why not design for the cheapest first cost of the product rather than hold fast to the past experience of a unitary system, wherein we returned it to the factory for service.

Because of the improvements made in manufacturing, wherein a great number of problems have been corrected which originally were the cause for the decision of returning the units to the factory for repair; could it then not be concluded that component parts of a unitary hermetic system be replaced in the field.

In 1945 it became necessary that we reach a decision relative to servicing our products, refrigerators, freezers, and room air conditioners.

Service Stations Costly

Our products are handled through independent distributors to dealers and ultimately to the customer, who in all situations happens to be the boss.

Should we consider setting up service stations throughout the United States as had been the custom in the past to take care of the failures that would naturally occur, or should we set up our distributors and have them spend probably \$10,000 of their money for equipment, in order to handle the service, or should we reach a conclusion that service could be performed in the field by capable refrigeration service engineers providing that they have necessary information, as they already had the equipment.

Training for Field Repair

Our first problem naturally was how could servicing people be trained on our product? We developed a manual, known as the Product Wise Information Manual, wherein we outlined in detail just how any component part of the refrigeration system could be changed, even though it was produced as a fully brazed hermetic seal system.

Along with this information we had to educate the service people that the old idea that had been in vogue for so many years, that if you broke into a refrigeration system it voided the warranty,

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HOLSCLOW BROS., INC.
428 N. WILLOW RD.—EVANSVILLE, INDIANA

Is a New Era In Service Work Coming Up?

One of the most significant discussions on refrigeration servicing to be presented in the past several years was made by John E. Unger, Service Manager, The Coolerator Co., in his talk on "Why Not Change Parts of Hermetic Systems" presented at the recent ARI Educational Conference at Long Beach, Calif.

The importance of this discussion is in the fact that it doesn't just discuss the subject in generalities, but tells *why and how* a major producer of refrigerators, freezers, and room air conditioners has put into operation a plan for changing units in the field.

Because the presentation runs to some length, it is being published in three instalments. Part I, published in the April 26 issue, reviewed the history of compressor and refrigeration system development, and told why the "Back to the Factory" move on inoperative units became so popular.

Part 2, being published in this issue, tells how the new plan of field changing of units and parts was put into operation. Part 3 will describe some of the equipment and methods that are recommended for best practices in field work on changing hermetic units and parts.

would not be in order on our products.

Next, we had the problem of where the good reputable servicing people would come from. We felt that there has always been a certain amount of refrigeration work done independently of the manufacturer even during the five-year warranty as well as after the five-year warranty had expired, and we also knew of the educational programs put on by the RSES and other allied members of the refrigeration industry and we believed that we would have no problem in finding capable service people.

Finding Servicing Firms

So that you may know how we found the servicing organizations, let's use the state of Alabama as an example. Our products are handled through a distributor in Birmingham and then through dealers in 67 counties of Alabama. Therefore, if we were to cover service completely for the state of Alabama, we at least would need one service organization for each county.

The distributor has in his em-

ploy a service manager for all products. This service manager must be familiar with all products handled and he also must be familiar with policies of various companies. There are certain qualifications that a distributor's service manager must have, and I would like to give you my view concerning the subject.

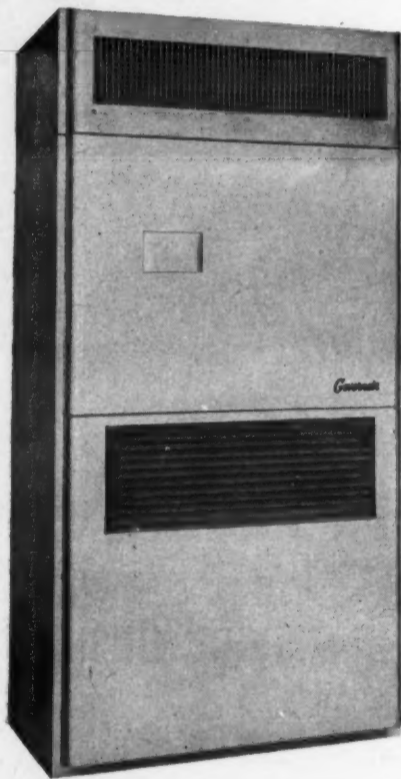
The service department of an organization is sometimes underestimated with relation to its position in the organization. It seems that the word "service" has become synonymous with the word repair. This is a misnomer. The service department must be recognized as more than a repair or fix-it shop. Actually the repair work is probably only a small percentage of the total work put out by any servicing organization.

The necessity for a good, well run servicing organization is increasing daily. Unless a customer is satisfied it is certain that he will search until he finds some person or organization who will satisfy him.

Satisfied customers and more sales can be insured by, (1) set-

(Continued on next page)

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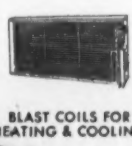
Available in capacities from 3 to 15 tons, the Governair Type SC Conditioner is the answer to your air conditioning needs in commerce, institutions, factories and homes. Choose Governair . . . originators* of completely packaged air conditioners!



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AIR CONDITIONERS



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HEATING & COOLING



EVAPORATIVE
CONDENSERS

GOVERNNAIR

*Type SCU Conditioners Patent No. 2,297,928

GOVERNNAIR CORPORATION • 513 N. Blackwelder • Oklahoma City, Okla.

NOW!

An Access Tee For Hermetic Units!

Yes, and a fool-proof tee at that! Superior's new access tee allows you to tap into a sealed unit where the charging port is stuck or is in a location where the port is extremely difficult to reach.



- ▶ Use for purging, charging, or attaching a gauge
- ▶ Use it repeatedly
- ▶ Fits all standard Hermetic Units
- ▶ Heavy forged brass body
- ▶ Resilient gasket for secondary seal
- ▶ $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{3}{4}$ " SAE or solder connections
- ▶ Operated by standard Hermetic Kit Valve and $\frac{1}{4}$ " hex. adapter

Ask your wholesaler for Superior Access Tees!

Superior

valve and fittings co.

Pittsburgh 26, Pa.



Why Not Change Parts?--

(Continued from preceding page)

ting up an efficient and complete servicing organization, (2) obtaining a well qualified man to run the organization, and (3) giving that man appointed necessary authority and responsibility for the administration of the department.

The service manager must be able to handle the administrative details of the department competently and with ease. He must be able to make prompt, accurate replies to correspondence related to his department. He must be able to handle or properly delegate the handling of the detail involved in the smooth functioning of this department.

Service Manager's Function

The service manager must be a supervisor. He must have the knack of supervising people and operations so as to obtain maximum results with minimum effort. He must be able to extend this supervision not only to the members of his own organization, but, also, to the servicing organizations with which he may have business connections.

The service manager must be a teacher. He must be able to instruct service personnel on various subjects so that they may be able to competently and efficiently handle all service procedures with which the service manager should be familiar.

He should be able to pass this information on to the personnel concerned. He must have a working knowledge of all items handled by his organization if he is to instruct others in the proper procedure and methods for rendering service on the products.

The service manager must be able to set up and control adequate part inventories for all items handled by his organization. The distributor is the organization which should carry a complete inventory of parts to facilitate quick replacement in the field. Consequently it is the responsibility of the service manager to expedite this replacement and to insure the reorder of parts so as to maintain an adequate stock level.

Previous mention has been made relative to the responsibility of the service manager as pertains to training. The service manager of any organization is responsible for the training of all dealers in the proper conduct of service for the items carried.

Contracting for Service

One method of supplying service is for the distributor to contract with independent servicing organizations for installation, customer training, and service work on the products that he sells. The fact that any given distributor uses this method of supplying service does not excuse the distributor from maintaining a service department and a service department manager to insure prompt service to the customer.

With this background of experience the distributor, then, has a qualified man to operate his servicing organization. Therefore, this is the basis on which we started in the state of Alabama to set up independent servicing organizations in the 67 counties of Alabama.

What Agreement States

The first step that was taken was to complete a service agency agreement between the distributor and the servicing agency. The main points of this agreement are as follows:

The distributor agrees to sell and the service agency agrees to purchase in accordance with current factory prices and discounts, such parts as may be essential to continued operation of our products. The distributor will recommend a list of parts for the inventory by the service agency. However, this inventory shall not be mandatory on this agreement. At

termination of this agreement, all parts in good condition may be returned to the distributor for full credit.

The Product Wise Service Manual shall be furnished with the agreement and shall govern the policy of the service agency in servicing, parts replacements, and repair.

The distributor will periodically hold service schools at strategically located towns, and the service agency will be expected to attend at least once per year.

Payment for service.

Service during the first year warranty, involving the changing of defective parts or corrective service to a basic refrigeration system as defined by the Product Wise Service Manual, or any service requiring adjustment to the product will be paid by the distributor.

Service during the second, third, fourth, and fifth year will be paid as follows:

A monetary allowance will be made by the distributor for corrective service as defined by the Product Wise Service Manual or for changing each compressor, evaporator, or condenser. The customer shall not be charged for corrective service, but may be charged for service connected with mileage and travel time in accordance with the customer's warranty.

The service agency agrees to furnish with each service call such information as the distributor may



require on forms supplied by the distributor.

Service Firm Contacts Dealers

The distributor authorizes the service agency to contract with the dealers in his territory on any basis agreeable to them for the installation, customer instruction on the products.

The distributor agrees to furnish service agency with a list of dealers and advise dealers of the appointment and to strongly recommend that in the interest of customer service the dealers participate in the plan.

There, of course, must necessarily be a service agreement between the retail dealer and the distributor.

In simply stating this agreement, we find that all the dealer needs to do is sell the merchandise, notify the service agency that they have sold a product to Mrs. Jones and that they wish it delivered on such a day and that the customer be given product information concerning its use and its care, and that any time service

is needed the customer just calls the servicing organization direct.

You will remember that I said *deliver, install, and instruct* the customer in the use of the product. I believe that now is the proper time and place to explain just what this statement means.

Meaning of "Instruct"

It has a definite relationship to the topic under discussion, "Why Not Change Parts of Hermetic Systems?" I mean, of course, by experienced and educated service people.

Here is an example of what did occur in the winter of 1947 in an area not covered in accordance with the plan previously mentioned.

The letter was received and I quote therefrom:

"We purchased your freezer last spring in . . . city, 70 miles from our home. We hauled the freezer home, uncrated same, plugged it in and it has run perfect ever since. We have stored

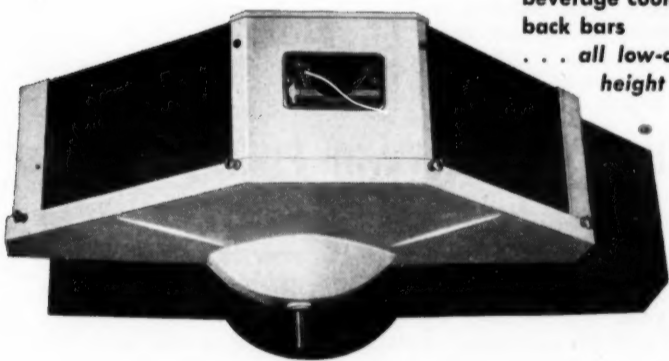
(Concluded on next page)

When space is **TIGHT**...

...do the job **RIGHT** with **Tenney**

"V2" UNIT COOLERS*

for reach-ins
beverage coolers
back bars
... all low-ceiling
height installations



*"V"-shaped
for 2-directional
air circulation,
PLUS:

- removal of thumb screws drops pan for easiest servicing
- circulation away from glass doors eliminates sweating
- equal circulation through each compartment for even temperatures and cooling
- no short-circuiting of air

They're NEW! — designed with space-saving, low height for full use of shelves, as well as minimum depth for tight, shallow installations. Tenney "V2" Coolers are one line you can sell and install with *complete confidence*, because they're backed by the sound engineering and construction you *always* get — when you specify **TENNEY!**

Tell us your problem and we'll show you a Tenney unit that will do the job . . . and do it **RIGHT**. Find out *now*, write . . .



Tenney
ENGINEERING, INC.

Plants: Union, N. J. and Baltimore, Md.
1090 SPRINGFIELD ROAD, UNION, N. J.

Engineers and Manufacturers of Refrigeration and Environmental Equipment

SCOTSMAN PRESENTS...

the **NEW**



500

Automatic

Super Cuber

**MAKES 500 LBS. OF CLEAR
100% PURE ICE CUBES DAILY**

- Rated Daily Capacity of 500 Lbs. or 9000 Cubes!
- Stainless Steel Storage Bin Stores 400 Lbs.
- Simplified, Dependable, Ice-Making Mechanism!
- Occupies Only 8 Sq. Ft. of Floor Space.
- Designed and Built to Your Specifications!

Scotsman is proud to present this great new addition to America's Most Complete Line of Automatic Ice Machines! The answer to the ever-growing need for on-the-premises ice machines for the large user. It is designed and engineered to the most exacting standards to give years and years of trouble-free service!

EXCLUSIVE NEW "CYCLE-MATIC" CONTROL...

The new SC-500 is equipped with the famous "cycle-matic" method of controlling . . . It's maximum efficiency and dependability proved by thousands of other model Super Cubers in operation throughout the world! It's your customer's guarantee of smooth performance, perfect cubes, and trouble-free operation!

The Scotsman franchise is a valuable franchise backed by strong, aggressive national merchandising. **WRITE TODAY.**

CLIP AND MAIL TODAY!

Please send me complete information about a Scotsman Franchise.

Name _____
Address _____
City _____ State _____



AMERICAN GAS MACHINE CO. • Division of Queen Stove Works • Albert Lea, Minn.

Why Not Change Parts?--

(Continued from preceding page) all kinds of fruits and vegetables in this freezer and now I have a question to ask. The question is, "Would you suggest using a hack saw to cut a piece of round-steak from the hind quarter?"

It seems quite silly, but it isn't, because this presented a problem to the customer. She read a certain portion of her instructions relative to packing fruits and vegetables, but did not read when it came to the point of preparing beef for freezing.

I believe that one of our greatest fallacies is that we are too gracious when thinking of, or analyzing people's knowledge, ability, and education. We assume that all people read all written instructions and naturally, would be completely familiar with new products of today.

With this thought foremost in

our minds, we placed our plan in operation in Alabama.

The servicing agencies in the counties of Alabama were not too difficult to find. Sure, it meant checking in regard to their abilities and their facilities and the servicing agencies were very much enthused in handling product service in the manner described.

Keep the Shop Clean

However, many could not be used because of shop conditions. Remember, clean - dry - free from leaks. Right here I would like to mention that many servicing organizations could take a leaf from the book of garage procedure.

I believe Ford started it when he moved his service garage to the front of the dealer's place of business, painted the floor gray and kept it clean. No more grease on the floor, parts stacked in

corners, and even removed the pin-up pictures from the wall—he sold service.

I once again want to draw your attention to the fact that we made the decision in 1945 to change component parts of the refrigeration systems.

Recently I asked the president of the Northwest RSES region, who previous to establishing his servicing organization just outside of Duluth, was an instructor of refrigeration at the Dunwoody Institute in Minneapolis, just what he thought of the question of changing component parts on refrigeration systems. I should like now to quote this gentleman:

"It is my opinion that we often improve the unit with some tricks from experience and in this way can assist the manufacturer in producing a better refrigeration system."

Reason for Changing Parts

There will always have to be the serviceman in the field for minor repairs, customer complaints, adjustments, etc., which a manufacturer can not perform, and why not let the serviceman replace component parts so that he can have a payroll job and insure his existence?

It takes time to remove a complete unit, crate, reorder, and install another unit, whereas, if a component part could be exchanged with less cost for both customer and manufacturer, both people would be much happier.

The customer expects his equipment to last longer than five years and feels more satisfied if he knows his equipment can be repaired at a lower cost because of the manufacturer's policy of making parts available.

His equipment must show a savings, otherwise it is to no benefit to use such equipment except for convenience. Not all servicemen, however, are qualified nor equipped to perform such work for manufacturers.

Role for Servicemen

Refrigeration is now a business for the service engineers and independent contractors and RSES can assure manufacturers of qualified men. Trade schools and manufacturer's service schools help upgrade these mechanics.

The refrigeration service engineer, whether he works for a distributor, a dealer, or for himself, can easily promote or demote a manufacturer's product. Many times we are asked just what manufacturer's product in refrigeration is the best. The easier one to service and the most functional product, of course, is the one we recommend. The service engineer is the one who lives with the pub-

lic and, therefore, has a great bearing on what the public ultimately desires.

Sure, with all this there are still some unqualified men as well as service shops but one cannot legislate people out of the business but manufacturers will disregard us unless we meet the requirements of clean shops, clean equipment, and proper work.

I personally believe the key to success of any manufactured product gives the customer satisfaction and this can only be by the use of competent servicing men.

We as a manufacturer believe that servicemen can further assist in the development of refrigeration products and we further believe that servicing organizations should be most interested in the installation, customer instruction, and servicing of products that come within their area.

Offers Steady Income

We also believe that there is a great opportunity for servicing agencies to have a steady income if they would enter into contracts with distributors for the installation, customer instruction, and servicing of products.

We have now arrived at the point in this discussion that servicing agencies for the distributor and dealers were in operation. However, there is another question which must be answered and this is, just how we would check these servicing people when they did perform work on our products.

We all realize, I believe, that the largest amount of mechanical failures, even though at this day they are very low, happens within the first year after installation. Most manufacturers place the responsibility of the first year free service to the customer in the lap of the distributor and/or dealer, and the manufacturer replaces the part or parts at no charge to their distributing organization.

Aids Quality Control

It was felt that upon embarking on such a program of changing only component parts that might fail in the refrigeration system, that we should immediately know during first year just what part or parts became defective and on what product. We further felt that if we paid for such information during this first year we would have a closer control on the products that we manufacture.

Thus we set up a system which would reimburse our distributor and in turn his dealer, or servicing agent, when they reported to us on a regular form just what had occurred with the product and with their conclusions as to why the failure occurred.

We not only do this for the first year, but we continue on for the second, third, fourth, and fifth year failures to attempt to increase the quality of our product, and from the reports that we receive from the field we are more able to control our production processes or change them if needed. This proved to be very helpful in 1947 when we started to produce freezers using "Freon-22" instead of "Freon-12."

(To Be Continued)

NEW IDEAS

In Air Conditioning And Refrigeration

Order the reprints you need today.

AIR CONDITIONING and Its Application

A collection of 103 of the most valuable articles on air conditioning printed in The News during the past two years. Filled with successful merchandising ideas and methods. Find out what makes people buy—learn solutions to installation problems. You'll find these and many more features in the 114-page book. Only \$1.50.

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Designed to fit in the service man's pocket or tool kit. This 99-page book combines 151 of the most useful tips contained in the "Slants on Service" column—a regular feature of The News. Covers problems you'll run into on the job with quick, simple solutions. Size: 4½ by 6 inches. Only \$1.00.

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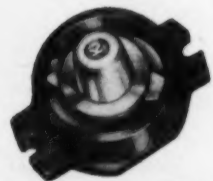
5-3-54



Motor Repairman Finds Customers Ask For KLIXON Protectors

TROY, N. Y.: Kenneth C. Jolivet, president of the Tri-State Electric Motors, Inc., largest motor sales and repair shop in Northeastern New York State, is enthusiastic over the way KLIXON Inherent Overheat Protectors prevent motor burnouts.

"We handle many thousands of motor repair jobs every year. We've found Klixon Protectors prevent motor burnouts and keep our customers happy. In fact our customers are now beginning to demand Klixon protected motors."



Manual Reset

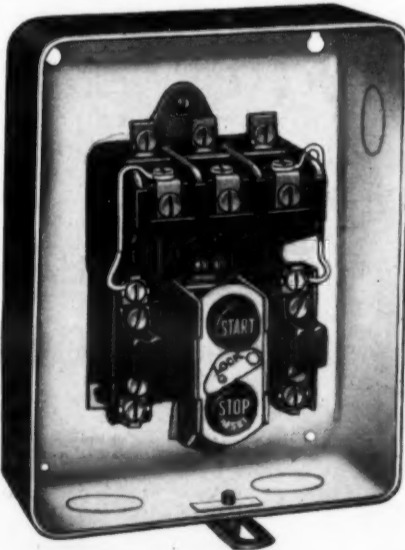
Automatic Reset

Klixon Protectors Reduce Service Calls and Repairs by Preventing Motor Burnouts

The KLIXON Protector, illustrated, is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer-preference, reduced service calls and minimized repairs and replacements, it will pay you well to ask for equipment with KLIXON Protectors.



METALS & CONTROLS CORPORATION
SPENCER THERMOSTAT DIVISION
2405 FOREST ST., ATTLEBORO, MASS.



MANUAL STARTERS with PUSH BUTTONS that provide dependable overload protection

These compact, hand operated starters have two convenient push buttons... START and STOP... that operate the switch mechanism. Press the START button and the silver alloy contacts close with a quick snap. Press the STOP button and the contacts open with the same positive action. Two overload breakers automatically open the switch in case of sustained overload. Just what you need for single phase or three phase air conditioning and refrigeration motors. Send for Bulletin 609.

Allen-Bradley Co., 1313 South First Street,
Milwaukee 4, Wisconsin

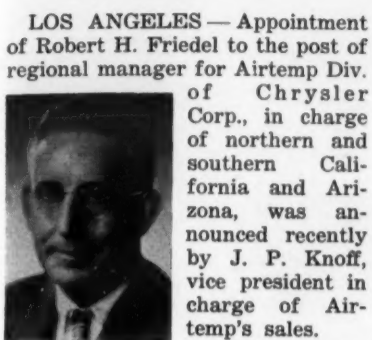
ALLEN-BRADLEY MOTOR CONTROLS for Air Conditioning and Refrigeration • Manual and automatic across-the-line starters • Compression type valve smooth starters • Pressure and temperature switches and controls • Relays and contactors from 1 to 12 poles Push buttons and selector switches.



ALLEN-BRADLEY
SOLENOID MOTOR CONTROL

QUALITY

Airtemp Names Friedel Calif. Region Manager



LOS ANGELES—Appointment of Robert H. Friedel to the post of regional manager for Airtemp Div. of Chrysler Corp., in charge of northern and southern California and Arizona, was announced recently by J. P. Knoff, vice president in charge of Airtemp's sales.

Friedel commences his new assignment immediately, having completed his former duties as staff assistant to Knoff. Friedel replaces Everett Ham in the California region. Ham has moved into a new post as special sales representative for Chrysler Airtemp, in charge of the northwest.

Friedel has been connected with the home appliance and equipment industry since 1919, and during 1953, had been in charge of Airtemp's residential air conditioning sales and promotion programs.

From 1946 through 1952, he was New York regional manager of Airtemp, after which he was director of residential air conditioning for the United States. Prior to joining Airtemp, Friedel was associated with east coast distributors of nationally-known appliances, and also served as special sales representative and factory sales manager for General Electric Co. Earlier, he had been associated with the Belsey Co., G-E distributor in Los Angeles, for four years as district manager in charge of major appliances.

ICS Adds Auxiliaries Text To Refrigeration Courses

SCRANTON, Pa.—A completely revised text, "Refrigeration Auxiliaries," has been added to the curriculum of International Correspondence Schools, according to John C. Villaume, dean of the faculty.

Written by C. T. Baker, noted air conditioning designer and consulting refrigeration engineer, the 116-page text is included in the refrigeration and refrigeration and air conditioning courses offered by the home-study school. The new text will supplement 10 other texts in the practical refrigeration course.

Profusely illustrated with photographs and diagrams, the text describes the latest in auxiliary refrigeration equipment. Emphasis is placed on the readable, easily-understood copy covering purposes and operations of the auxiliary equipment.

Among the equipment and operations discussed are: Condensers, evaporators, liquid receivers, brine and unit coolers, strainers and separators, and especially well-covered sections on valves and cocks, piping and fittings, and testing methods.

A major component of the text describes the construction and operation of various units of which a refrigeration plant is composed. Methods employed in connecting auxiliary parts so as to provide efficient operation are fully explained together with explanations of their functions and purposes.

The text on auxiliary refrigeration is also available under the I.C.S. Selective Plan which permits employers to select only those subjects required to achieve specific training objectives for certain picked personnel.

Daybar Leases Building

BUFFALO—Bryant Daybar Inc., heating and air conditioning equipment distributors, have leased a one-story building with 5,000 sq. ft. of floor space for offices and a warehouse at 30 Gillette Ave.

Program Set for Forum of Distribution, Advertising

CHICAGO—A study of market advances that can help to achieve the higher living standards necessary to assure a continued strong economy will feature the fifth annual *Chicago Tribune* Forum of Distribution and Advertising on May 17 and 18.

Twenty-four business and industrial leaders will discuss aspects of this subject under the guidance of three moderators at the sessions scheduled in W-G-N Audience Studio, 445 N. Michigan Ave.

"Marketing to raise the standard of living" will be the theme of Area I on Monday afternoon, May 17. The second session of the Forum on Tuesday morning, May 18, will be devoted to "Management looks at distribution and advertising." Third session, May 18, will discuss "Advertising to raise the standard of living."

Duncan Manages Penn's Berkeley, Calif. Office

GOSHEN, Ind.—Marechal N. Duncan has been appointed district office manager for the Berkeley, Calif. territory, according to R. H. Luscombe, general sales manager for Penn Controls, Inc.



M. N. Duncan

The Penn district office remains at 2806 Eighth St., Berkeley, and the telephone number remains Berkeley 7-3867.

Duncan replaces E. T. Layport, who resigned from the Penn organization to devote full time to managing the Pacific Control Products at the same address. All warehousing activities connected with the Penn district office have been transferred to Pacific Control.

Servel Wins Second ABP Award for Effective Adv.

EVANSVILLE, Ind.—For the second successive year, Servel, Inc. has won a top award in the Associated Business Publications' annual competition for the most effective use of advertising to dealers and distributors.

The refrigeration and air conditioning company received first-place honors for 1954 in the division for "Advertising Used to Introduce New Products Or New Packaging."

The winning advertisement, prepared by Hicks and Greist, Inc., under the supervision of Robert M. Stevens, Servel advertising manager, launched the "automatic ice-maker" refrigerator. This is the new type of refrigerator which freezes ice cubes without trays, stores them in a basket, and replaces them as they are used.

The citation accompanying the

award for the two-page, black-and-white ad called it "a clear-cut, direct story, which quickly tells retailers how to attract customers and close sales."

Servel's first-place award from ABP last year was in the division for multiple page advertising of three or more consecutive pages in one issue.

Gibson Shifts Christensen To Chicago Sales Branch

GREENVILLE, Mich.—F. L. Sacha, manager of Gibson sales, has announced the appointment of John S. Christensen as sales representative for the Chicago branch of Gibson Refrigerator Sales Corp.

Christensen will cover the outlying Chicago territory including Rockford, Ottawa, Kankakee, Aurora, Joliet, Elgin, and LaSalle.

He was formerly divisional sales manager for Gibson, with headquarters in Dallas, Texas, and has been with Gibson for five years.

If You Sell Freezers

Last year 43% of all freezer sales were made in the four months from June through September. AIR CONDITIONING & REFRIGERATION NEWS leads off this selling season with its annual freezer edition containing 367 freezer specifications. More than 19,000 paid subscribers will receive this issue. Last year more than 1,000 requested extra copies 2,000 ordered reprints. Because men who buy and sell freezers read and value this annual issue and use it all year long it's the ideal place to sell your products. Schedule your advertising in this May 31 issue.

If You Sell To Freezer Manufacturers

Your ad is good only if it reaches the right man. It will in AIR CONDITIONING & REFRIGERATION NEWS. More key men among these leading freezer manufacturers read the NEWS than any other industry publication.

Ace
Admiral
Amana
Aveo
Barkow
Ben-Hur
Carrier
Coolerator
Deepfreeze
Esco
Fogel

Frigidaire
General Electric
Gibson
Hotpoint
International Harvester
Jordon
Kelvinator
Manitowoc
McCray
Norge
Nor-Lake

Philco
Quicfreez
Revco
Servel
Schaefer
Tyler
United
Victor
Weber
Westinghouse
Wilson

The point is clear. Buying executives you want to reach pay to read the NEWS. Put your sales story before them in the annual Freezer Issue of AIR CONDITIONING & REFRIGERATION NEWS on May 31.

CLOSES MAY 21

AIR CONDITIONING & REFRIGERATION News

450 W. Fort Street, Detroit 26, Mich.

ALLEN SCHILDHAMMER
134 S. LaSalle St.
Chicago 3, Illinois

ROBERT M. PRICE
521 Fifth Ave.
New York 17, N. Y.

RICHARD CLEARY
Commercial Bank Bldg.
Berea, Ohio

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurement issued by the various indicated U. S. Government procurement offices. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases. Invitations for bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

Description	Quantity	Invitation No.	Opening Date
Bureau of Ships, Washington, D. C.			
Water chiller non magnetic	7	549-849Q	17 May 54
Freon 12 for shipboard use per Specification SHIPS R-15222 dated 18 March 1954 and Bushings Drawings 5902-D-3136052.			
Tobyhanna Signal Depot, Tobyhanna, Pennsylvania			
Prefabrication and installation, air exhaust, air make-up systems, various shops per Specs. and Dwg's.	Job	32B	18 May 54
Purchasing & Contracting Office, The Engineer Center, U. S. Army, Fort Belvoir, Virginia			
One (1) each Experimental model 48,000 B.t.u./hr. Air Conditioner.	1 ea.	S-44-009- (eng-54-14) (Neg-54-188)	17 May 54
Commanding General, Jeffersonville Quartermaster Depot, Jeffersonville, Indiana—Attn: Purchasing Division.			
Heating of Rooms A-B-C Bldg. 72.	Various	54-45-B	19 May 54
District Engineer, Tulsa District, Corps of Engineers, Tulsa, Oklahoma			
Construction of Cold Storage and Meat Cutting Plant including utilities and pavements, Perrin Air Force Base, Sherman, Texas.	Job	(ENG-54-75)	20 May 54
Public Works Officer, Marine Corps Base, Camp Lejeune, North Carolina			
Air conditioning hostess houses hadnot point building 14 and camp geiger building TC-200.	2	41899"B"	14 May 54

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Business Service Center, General Services Administration, Region 3, 7th and D Sts., S.W., Washington 25, D. C.			
Hygrometer or sling psychrometer with thermometers (wet bulb and dry bulb).	20 ea.	(428-120-4-102)	7 May 54
Refrigerator, electric, household type well insulated with	3 ea.	(428-120-4-102)	7 May 54

sealed refrigeration unit, 7-cu. ft. capacity.	2 ea.	(428-120-4102)	7 May 54
Room dehumidifier, electric with sealed refrigeration unit, for operation in closed space of not more than 10,000 cu. ft. and with capacity to remove air at 90° F. and 90% relative humidity.	2 ea.	(428-120-4102)	7 May 54
Room air conditioner, cabinet type for continuous operation as room cooler and dehumidifier, cooling capacity 10,000 B.t.u./hr.	71 ea.	(9-00-201-421)	23 May 54
Refrigerators, kerosene burner, approximately 7-cu. ft. capacity, standard interior equipment.	90 ea.	(9-00-201-421)	23 May 54
Refrigerators, kerosene burner, approximately 4½-cu. ft. capacity, standard interior equipment.	326 ea.	(9-00-201-421)	23 May 54
Refrigerators, kerosene burner, approximately 1-1/2-cu. ft. capacity, standard interior equipment.	Job	(GS-R3-B-3180)	6 May 54
Replacing drinking water refrigeration equipment, Commerce Building, Washington, D. C.			
Business Service Center, General Services Administration, Region IV, 50 Seventh St., N.E., Atlanta, Georgia			
Air Conditioning Equipment etc., FSS Warehouse (New Lab.), East Point, Ga.	Job	CR4-787	25 May 54
Business Service Center, General Services Administration, Region 8, Bldg. 41, Denver Federal Center, Denver, Colorado			
Air conditioning of third floor offices, U. S. Post Office and Court House, Roswell, N. M.	Job	Proj. No. 225	5 May 54

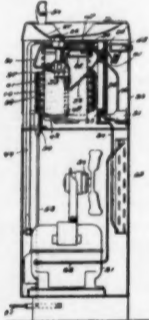
CONTRACTS AWARDED THROUGH APRIL 26

Oklahoma City Air Materiel Area, Tinker Air Force Base, Oklahoma City, Oklahoma			
Filter Air Assy.—13 items, \$43,109.—American Air Filter Co., Inc., 200 Central Ave., Louisville, Ky.			
Range, Electric (155/51157/54.—50 ea., \$45,000.—Hotpoint Co. "A" Division, Division of General Electric Co., 227 S. Seeley Ave., Chicago 12, Illinois.			
Corps of Engineers, U. S. Army, Office of the Division Engineer, New England Div., 857 Commonwealth Ave., Boston 15, Mass.			
Site Adaptation of Modified Plans for Central Heating Plant and Design of a Heat Distribution System at Otis Air Force Base, Falmouth, Mass. DA-19-016-Eng-3102.—Job, \$26,230.—Buerkel & Co., Inc., 24 Union Park St., Boston, Mass.			
Construction of Additional Facilities, Central Heating Plant, Limestone Air Force Base, Limestone, Me. Eng-19-016-54-83.—Job, \$38,700.—Industrial Heating & Piping Co., 60 Mt. Vernon St., Reading, Mass.			
Severn River Naval Command, United States Naval Academy, Officer in Charge of Construction, Annapolis, Maryland			
Modification of 35° cold room, building No. 3, U. S. Naval Engineering Experiment Station, Annapolis, Maryland Noy-73376.—Job, \$46,821.—The Pioneer Industrial Contractors, Inc., 2867 W. Franklin St., Baltimore 23, Md.			
General Services Administration, 219 S. Clark St., Chicago 4, Illinois			
Refrigerators.—12 ea., \$10,032.—Traulsen & Co., Inc., 41-15 DeLong St., Flushing 55, N. Y.			
Refrigerators.—34 ea., \$18,596.—Jordan Refrig. Co., Inc., 7900 Tabor Rd., Philadelphia 11, Pa.			
General Services Administration, Business Service Center, Region 3, Washington 25, D. C.			
Ice Machine.—1 ea., \$20,220.—Frick Co., Inc., Waynesboro, Pa.			

PATENTS

Week of January 26

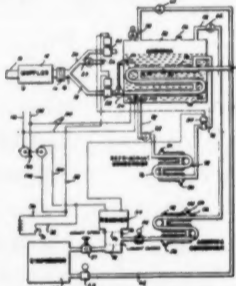
2,667,039. WATER COOLER THERMOSTATIC CONTROL. John G. Wehrwein, Glen Riddle, Pa., assignor to Sunroc Refrigeration Co.



1. In a water cooler thermostatic control, a heat transfer unit having water passage provided with inlet and outlet connections to the heat transfer unit and having refrigerant passages provided with inlet and outlet connections to the heat transfer unit, a refrigeration system including a compressor and condenser connected to the refrigeration inlet and out-

let connections and having a thermostat controlling the starting and stopping of the compressor, the refrigerant inlet, refrigerant outlet and water inlet to the heat transfer unit being brought together in heat transfer relation at one point, and a thermostatic well including the thermostat in heat transfer relation with the refrigerant inlet and outlet connections and the water inlet connection at the common point.

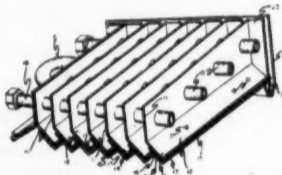
2,667,040. ABSORPTION REFRIGERATION SYSTEM FOR MOBILE APPLICATION. Chester Louis Keating, Jr., New Orleans, La. Application Dec. 21, 1951.



1. For use with a mobile device powered by an internal combustion engine, an absorption refrigeration system comprising a generator containing a liquefied refrigerant absorbent mixture, a receiver, an evaporator, an outlet tubing connecting the generator to the receiver and the receiver to the evaporator, a return tubing connecting the evaporator to the gen-

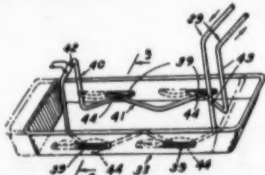
erator, means conveying products of combustion from the engine through the generator, means connected to said last means for conveying the products of combustion directly to the atmosphere bypassing the generator, solenoid valves controlling both of said last means a source of electrical energy, and switch means in circuit with the source of electrical energy and the valves for simultaneously actuating the valves in reverse operation, said last means being mounted in the receiver and being responsive to the level of the refrigerant therein.

2,667,041. EVAPORATOR AND DRIP CATCHER ARRANGEMENT FOR REFRIGERATING APPARATUS. Ray M. Henderson, Bryan, Ohio.



1. In combination with an evaporator of a refrigerating system, of a drip catcher structure comprising a plurality of spaced apart plates extending across beneath the evaporator and connected to the evaporator so as to have a substantial direct heat exchange path therewith through material having good heat conducting characteristics, each of said plates being arranged to slope downwardly and having at its lower marginal portion a turned up edge to provide a trough which will be connected in a continuous manner with a plate length, and said plates and troughs being in such vertical relation as to catch all drip from the evaporator.

2,667,042. REFRIGERATING SYSTEM, INCLUDING DEFROSTER DRAINAGE RECEPTACLE AND SUPPORT THEREFOR. Florence E. Anderson, Winnetka, Ill., assignor to Motor Products Corp., Detroit.



1. In a refrigerating system, a condenser unit, a compressor unit, a cooling unit, tubing connecting said units and having a section through which refrigerant flows at a temperature sufficiently high to vaporize water, a pan positioned to collect moisture dripping from the cooling unit, said section of the tubing extending into the pan in heat exchange relation to moisture collected by the pan and having portions removably engageable with adjacent portions of the pan to support the pan in the moisture collecting position aforesaid.

(To Be Continued)

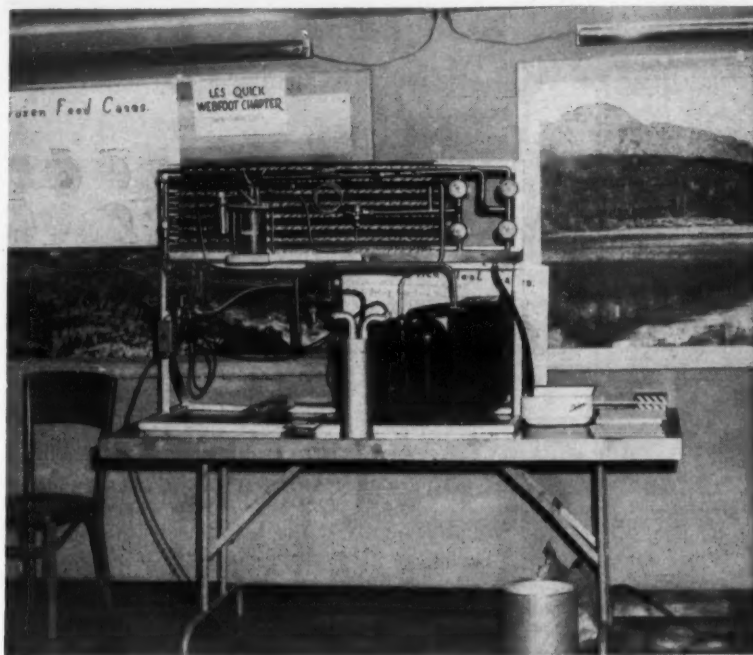


EXHIBIT AT 5th annual educational conference of Western International Association, RSES, by Les Quick, Webfoot Chapter, showed visually the action of an accumulator-heat-exchanger invented by him for use on hot gas defrost systems and other applications.

Exhibits by Individuals and Chapters Prove To Be Popular Feature of Annual Western International RSES Conference

EUGENE, Ore.—A group of exhibits staged by chapters on a competitive basis and by individual members on a non-competitive basis was a novel and popular feature of the fifth annual educational conference of the Western International Association, Refrigeration Service Engineers Society.

A total of 256 members, guests, and wives registered for the three-day event, held recently at the Eugene hotel here. The Webfoot Chapter and Auxiliary were hosts.

Competing, Non-Competing Exhibits Planned

The idea of the exhibits grew from a desire to have something on the educational program to see as well as hear, according to Harold C. Jensen, convention historian. It was planned to have competing exhibits by chapters and also to allow the showing of inventions of members as non-competing displays, provided the devices were not yet on the market.

There were eight exhibits in all

—five by chapters and three by individuals.

"The variety and originality of the exhibits and the keen interest shown would indicate that the feature is here to stay—in WIA at least," Jensen reported.

Ribbons Awarded for Originality, Interest, Educational Qualities

Ribbons were awarded for the most original exhibit, the most educational exhibit, and the most interesting exhibit. The ribbon for the most original exhibit was won by the Seattle Chapter, which displayed old refrigeration periodicals and service manuals and an apparatus for drying refrigeration systems by blowing dried and heated air through them.

The award for the most educational exhibit went to the Multnomah Chapter. One display in this exhibit showed the effects of moisture and dirt on valve parts. There was also a "horrible examples" display, and an "antique" display.

(Concluded on next page)

Handy Way To Subscribe

Receive the greatest trade paper in the Industry—AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on air conditioning, commercial and industrial refrigeration, home freezers, and household refrigeration; manufacturing, contracting, distributing, retailing, and servicing. Only \$6.00 per year, 52 issues.

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You will want extra copies of this outstanding issue. Take advantage of these quantity rates to provide a copy for each of your key men to use throughout the year.

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Gentlemen: Reserve in my name copies of the May 31 issue of Air Conditioning & Refrigeration News containing HOME FREEZER SPECIFICATIONS for 1954. Please ship these to me at the address given below as soon as possible.

☐ Payment enclosed ☐ Bill company

Name

Company

Street

City Zone State

5-9-54

Western Conference Exhibits--

(Concluded from preceding page) section" containing ancient valves and switches and an old console air conditioner.

The Webfoot Chapter won the ribbon for the most interesting exhibit. It displayed the "Gismo," an experimental apparatus with a glass coil to show the comparative action of various refrigerant controls, to work out refrigeration problems, etc. This chapter, too, had an antique and horrible-example display.

Judges were International Vice President Charles Bell and the six speakers on the educational program.

Non-competing exhibits were shown by W. D. Morgan, member-at-large, and Les Quick and Gene Koch of the Webfoot Chapter. Morgan displayed an apparatus invented by him for use with air conditioners to remove pollen from the air.

Accumulator-Heat-Exchanger Exhibited

Quick's exhibit was set up to show visually the action of an accumulator-heat-exchanger invented by him for use on hot-gas defrost systems and other applications. Koch's display showed operation of a high-capacity-even-flow refrigerant metering device he invented.

Educational talks were presented by Paul Domke, Mueller Brass Co.;

Frank Fairfield, Carrier Corp.; Prof. Thomas Onsdorff, Department of Food Technology, Oregon State college; Arthur K. Johnston, Ranco Inc.; H. M. Kelso, Tecumseh Products Co.; and John L. Zant, Copeland Refrigeration Corp.

After a brief message from WIA President Wes Smith in which he reviewed the year's growth of the association, Domke discussed low temperature refrigeration for the processing of penicillin and serum.

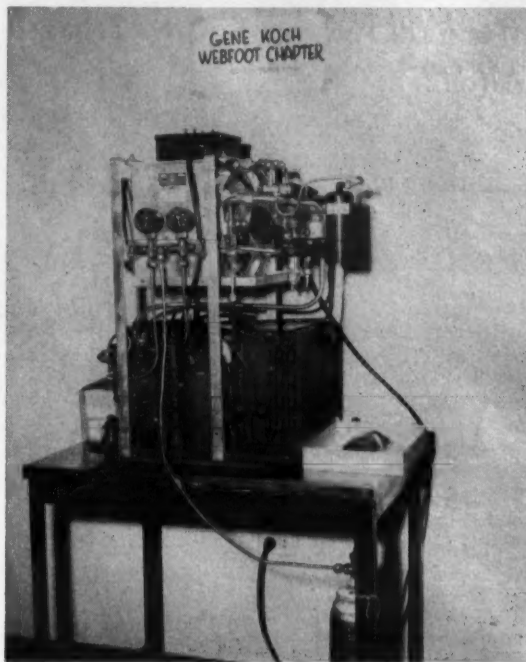
Blood, Serum, Penicillin Processing, Storage

He told of the interesting problems which came up in the development of equipment which would withstand the great variations in pressure and temperature involved in the processing and storage of blood, serums, and penicillin.

In some cases, temperatures were maintained as low as -150° F., and various systems and refrigerants were used. Cascade systems using "Freon-13" proved most dependable, he said.

A unique feature of the cascade system, Domke pointed out, was cooling discharge gas in the first stage by inserting a jet in the discharge line and feeding it with an ordinary expansion valve.

He also described precautionary measures to safeguard against loss of this expensive refrigerant, one of which was the discharging of



THIS APPARATUS was set up by Gene Koch, Webfoot Chapter, to show operation of high-capacity, even-flow refrigerant metering device he invented.

the pop-off into a tank on which a vacuum was maintained.

Discussing room air conditioners, Fairfield stressed the tremendous growth of this field and its increasing importance to the refrigeration serviceman.

Too often, he said, room units are improperly applied and installed by the many trades handling this work. The problem and service eventually come back to the refrigeration serviceman, he stated.

Processing Frozen Foods

Processing and preservation of frozen foods for the home freezer and locker was the subject of Prof. Onsdorff's talk. He spoke of work being done at Oregon State college in a continuing search for better methods of freezing products and for varieties of fruits and vegetables best suited for freezing and storage.

Prof. Onsdorff emphasized the following points of prime importance: quality of product; freshness of product; selection of proper varieties of fruits and vegetables; proper packaging; and desirability of storage at an even temperature, preferably 0° to -10° F.

Controls Discussed

Johnston based his talk on a representative group of controls he displayed. These ranged from the simple temperature control to the more complex controls which must perform several functions, such as control of unit, automatic defrost, etc.

He also commented on the problem of the manufacturer, who must continually expand his line of controls to cope with the ever-increasing number of specific-fit applications and customer demands for more and more automatic operation of equipment.

Kelso reviewed developments in servicing hermetics, dwelling on the trend toward field replacement of hermetic units and the reasons for this.

He said the problem had been developing for several years as each manufacturer came out with

an ever-expanding number of models, which required the wholesaler to carry an ever-increasing stock of units.

The problem had, however, come to a head with the mushrooming sale of home freezers in which field replacement of the hermetic unit was the only way out, he stated.

Kelso did not advocate rebuilding of the compressor units at other than factory or manufacturer-sponsored zone shops because of the extremely low tolerances and selective fits of parts. Further, he did not feel that an ordinary shop could properly dehydrate a unit after repair.

Keeping Dirt, Moisture Out of Hermetics

The question period pointed up the importance of the extreme care necessary to keep dirt, moisture, etc. out of the hermetic.

Zant spoke on "The Effects of Suction-Liquid Line Heat Exchangers on the Performance of a Refrigeration System."

He stressed the limitations of any heat exchanger and the need for an understanding of their application and operation. Projected slides were shown giving formulae, data, and illustrations of various types of exchangers.

A feature of the educational ses-

sion was a stunt put on by the safety committee of the Webfoot Chapter. Between each talk a "ghost" dressed in white sheeting wandered down the aisles, carrying each time a sign stating some breach of safety rules.

These were: "I cleaned parts with carbon tet"; "I dropped a wrench in the flywheel"; "I didn't pull the switch"; "I breathed too much methyl chloride."

3 New Chapters Welcomed

At the banquet, three new chapters—Rogue Valley at Medford, Ore.; Willamette Valley at Salem, Ore.; and Island at Victoria, B. C.—were welcomed into WIA.

Also, acceptance of Tacoma Chapter's bid for the sixth annual educational conference in 1955 was announced. Headquarters for the conference will be the Winthrop hotel in Tacoma, and March 24, 25, and 26 are the tentative dates.

A highlight of the evening was the presentation of first and eighth place Mueller awards to Harold Jensen and Maurice Smith, contest chairman of Webfoot and Seattle chapters, respectively. Paul Domke of Mueller Brass Co. presented the \$500 and \$50 checks.

The annual election of officers was held during the business meeting. Those elected were:

Virgil Gamet, Webfoot Chapter, president; Fay Snyder, Seattle Chapter, first vice president; James Phillipson, Lion's Gate Chapter, second vice president; Don Kuhl, Webfoot Chapter, secretary; Ralph Jones, Tacoma Chapter, treasurer; William Baker, Lion's Gate Chapter, sergeant-at-arms; Richard Ballinger, Seattle Chapter, educational chairman.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

RATES for all other classifications \$10.00 per insertion. Limit 50 words. 20¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

ATTENTION, MANUFACTURERS—Maybe you don't need a full-time writer for your instruction sheets and manuals. In that case, it will pay you to look into a new writing service offered by a practical refrigeration and air conditioning man who can handle clear "American" English. VIRGIL C. JAMES, Cuba, Missouri.

GRADUATE MECHANICAL engineer seeking opportunity in residential air conditioning. Offers more than 7 years of rounded design and production engineering experience in refrigerated appliances. Family man with excellent references. For complete resume write BOX 4556, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

A KENTUCKY food wholesaler is anxious to provide more extensive services to his stores so that they may take better advantage of modernization trends. He is interested in acquiring the services of a man, preferably with commercial refrigerator sales experience, who also has the ability to draw up rough store interior equipment layouts so they may be used for production of finished plans by others. Over-all program also includes establishment of several new stores in at least three major cities in the territory for which such plans must be made. Write, giving personal history, experience, etc., to BOX 4557, Air Conditioning & Refrigeration News.

CARRIER DEALER in Ohio needs experienced air conditioning and refrigeration servicemen who know Carrier equipment and Minneapolis-Honeywell controls. Ideal working conditions and excellent future for right man. Reply to BOX 4550, Air Conditioning & Refrigeration News.

ENGINEER, MECHANICAL, experience in production of refrigerating equipment or window air conditioners, processing and testing. Splendid opportunity to lead department in fast growing concern in NYC. State experience and salary required. BOX 4554, Air Conditioning & Refrigeration News.

FIELD SERVICE engineer, Seattle or vicinity, to cover Washington, Oregon, Montana, and Provinces of Canada immediately north of those States. A real opportunity to prove your ability in leadership and enthusiasm for accomplishing your objectives. We are one of the larger commercial and food store refrigeration equipment manufacturers. You must be in a position to travel, have over five years' commercial refrigeration experience, have knowledge of electricity, refrigerants and some application engineering. Write detailed particulars, giving background and experience. Enclose small professional photo. Salary and expenses. BOX 4552, Air Conditioning & Refrigeration News.

MANUFACTURERS' REPRESENTATIVES calling on fixture dealers and distributors wanted by major manufacturer of walk-in coolers and freezers. Good territories are now open on liberal commission basis. No objection to non-con-

flicting lines. Write BOX 4553, Air Conditioning & Refrigeration News.

SALES ENGINEER to join refrigeration control manufacturer. Moderate traveling required contacting wholesalers, manufacturers, and contractors. Working out of Detroit, covering Michigan and part of Ohio. Experience in air conditioning and refrigeration required. Must be graduate engineer or equivalent. Prefer man in 25 to 30-year age group. Earnings commensurate with ability and experience. Please include photograph with complete resume of education and experience in your reply. BOX 4548, Air Conditioning & Refrigeration News.

SALES MANAGER—Refrigeration air conditioning products for manufacturer automatic controls. Location, California. Please give us age and salary requirements. BOX 4558, Air Conditioning & Refrigeration News.

SOMEWHERE in Kentucky there is a commercial refrigerator distributor or a top-flight salesman willing to move there who is now looking for another line of display and storage refrigerators on which to build for the future. In view of changing merchandising methods in food stores, such a man is familiar with and can draft rough equipment layouts for food markets for conversion to photographic store plans by our engineers. We take it for granted that he can sell both wholesale and retail and for that man we have a story in which he will be interested since it involves a better-than-average basis of remuneration. Send details of experience, personal history, etc., to BOX 4559, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

ATTENTION SERVICEMEN: Send for our refrigeration parts and supplies catalog. Save up to 50% on many items. Relays, V belts, T.X. valves, fittings, controls, driers. New—guaranteed merchandise. WALTER W. STARR REFRIGERATION, 2333 Lincoln Avenue, Chicago 13, Illinois.

BRAND NEW manufacturers surplus! Approximately 70 - 1/2 H.P. twin cylinder commercial condensing units, less motors. All copper condensers, spare parts; valves, etc. Price \$1000 or best offer. MR. RAY, P.O. Box 502, Union, New Jersey. Elizabeth 3-0694.

1/2 AND 1 H.P. nationally-known compressors at sacrifice prices (manufacturer prohibits us from using name). All twin-cylinder bodies with flywheel and service valves—1/2 H.P. only \$42.00; 1 H.P., \$47.00. (10% discount in lots of 6). Model SASAL1 and SASAM1, 1/4 H.P. fan-cooled hermetic units, \$34.00; model SA4AL1—1/4 H.P., \$37.00. All equipment new and fully guaranteed. MANN REFRIGERATION SUPPLY CO., 440 Lafayette Street, New York City, or phone GRamercy 3-8000.

SOFT ICE cream freezers—Cash in on money-making opportunities in used freezers, first class condition. One quart loading; continuous automatic feeding keeps machine full. Priced for quick sale, \$275, less than one-fifth original cost. Write PHILIP BERHEIM, 2334 Humbolt Ave., El Cerrito 9, California.

WINDOW UNIT designs for sale (1954 features). Well tested 1/2 and 1 h.p. units complete with production drawings—arranged for heat pump and latest drawer type installation which permits minimum-maximum extension into the room. BOX 4549, Air Conditioning & Refrigeration News.

WEST COAST SALES REPRESENTATIVE

Former sales manager of large nationally-known manufacturer, now and for several years operating successful West Coast sales agency, can handle an additional line. Has had extensive experience in appliances, laundry equipment, commercial and household refrigeration and related products. Thorough knowledge and acquaintance with all types of desirable retail and wholesale distribution. Can give Eastern manufacturer efficient and trustworthy representation for California or all or part of eleven Western States. Can furnish top references who will vouch for merchandising ability and aggressiveness to get your job done. Address reply to:

SALES REPRESENTATIVE, BOX 3661
TERMINAL ANNEX, LOS ANGELES, CAL.

REFRIGERATION AND AIR CONDITIONING ENGINEER

A well-established, progressive and rapidly-expanding air conditioning manufacturer in the South requires an engineer to take over all responsibilities of production, testing, and new development of residential air conditioning package units. Must be capable and experienced in hermetic circuit designs and production. Experience of at least 10 to 15 years in this field essential. The man we want is one presently employed who is ambitious and desirous of an unlimited opportunity for advancement. Give us the details of your experience in your first letter. Our employees know of this ad.

WRITE BOX 4555, AIR CONDITIONING & REFRIGERATION NEWS

how to make hot sales prospects out of cold customers...



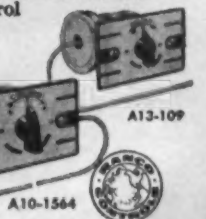
You'll melt sales resistance in a hurry with Ranco's new window air conditioner controls... just the ticket for modernizing old-fashioned window air conditioners not equipped with controls.

Offices and homes both offer you tremendous sales possibilities. These new controls prevent over-cooling... hold down humidity... maintain a "just right" indoor climate day and night. Get your share of this extra modernization business with Ranco's new A13-109 (3" differential), or A10-1564 (5" differential) control. Remember—whatever your control problem—it pays to see your Ranco wholesaler first. He has over 4,000 replacements—far more than available from any other source!

Ranco Inc.

COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURER OF REFRIGERATION CONTROLS



NEMA Drive--

(Concluded from Page 1, Col. 5)

Council's publication *Safety Education*, a full page announcement of this program has already been brought to the attention of 8,000 leaders in school safety programs throughout the country.

Local safety councils have been alerted. Boy Scout, Girl Scout, and Cub Scout organizations, through their own facilities, are putting this program into motion. The 4-H Club organization has already alerted its members to cooperate.

NEMA itself is enlisting the cooperation of industry and other organizations, including utilities, safety engineers, casualty insurance companies and their agents, local service and fraternal clubs, and others.

NEMA has prepared and is distributing a four-page folder containing complete information about the drive. The folder contains samples of a safety education data sheet, a poster, an envelope stuffer, and a reprint of the announcement in *Safety Education* magazine.

The safety education data sheet is being distributed by the National Safety Council through school officials. It covers the hazards of discarded boxes and suggests what should be done about them.

The poster warns children against the dangers of being trapped inside such boxes. It is being made available to 1,160 school systems and to many other sources of distribution and use.

The envelope stuffer gives householders complete instructions on how to make discarded boxes harmless. It will have wide distribution, NEMA said.

Since NEMA does not have sufficient funds to make nationwide distribution of these materials at no charge, it said that dealers and other industry organizations are being asked to pay the reproduction and mailing cost.

Data sheets are available at \$2.50 per 100, envelope stuffers at \$2 per 100, and posters at 5 cents each from the household refrigerator and farm and home freezer sections.

NEMA declared that the program, which is very broad in scope, needs and urges the cooperation of everyone who wants to do something about this menace.

Abandoned refrigerators cost the lives of 29 children last year, five children already this year, and more than 80 in the past five years. With more and larger boxes being abandoned each year—currently at the rate of about 3,000,000 per year—the danger is seen as increasing rather than diminishing.

Fresno Firm Appointed Distributor for Amana

AMANA, Iowa—San Joaquin Valley Distributors, Inc., Fresno, Calif., (a division of H. E. Verble Co.) has been appointed distributor for Amana home freezers and room air conditioners, it was announced recently by E. L. Hinchliff, sales manager of Amana Refrigeration, Inc.

The firm will cover eight counties in the west central area of California. Officers are: H. E. Verble, president; Joseph Marsalisi, vice president; and Fred W. Uebner, secretary-treasurer, who will direct sales activities.

Ferd Potter Will Head RSES In Michigan

FLINT, Mich.—A variety of refrigeration and air conditioning topics were discussed during educational sessions when the Michigan RSES Association held its fifth annual convention here recently.

The group heard Charles M. Heathman of Servel discuss "Selling Replacement Equipment"; George Eager of Servel on "Servicing Hermetic Units"; Carl Millson of Acme Industries on "Evaporative Condensers and Cooling Towers"; N. J. Biddle of the Michigan Sheet Metal Association on "Small Business Problems"; Lou Wallace of Ansul Chemical on acid formation in refrigeration systems; and Raymond R. Mays of Chrysler Airtemp on "Residential Air Conditioning."

Ferd Potter was elected president of the association for the coming year; Don Renwick, first vice president; Clare Babcock, second vice president; V. V. Solomon, secretary; Harry Hondrop, treasurer; and Owen Dobbs, sergeant-at-arms.

FTC Hearings--

(Concluded from Page 1, Col. 3) the Federal building in such cities that have a Federal building. Otherwise, the hearings are held in public places such as courthouses, county buildings, etc.

Refrigeration & Air Conditioning Contractors Association, which claims that the FTC action against the ice cream companies is a direct result of its petitions to that agency, has appointed regional committees to gather evidence and help in the presentation of the case.

RACCA is contending that the ice cream companies have and are using the commercial refrigeration industry as a football in providing a service to customers in exchange for exclusive sale of their products, and that such activities represent a loss of up to 20% of the yearly volume done by commercial refrigeration dealers.

Heat-X-Changer--

(Concluded from Page 1, Col. 3)

Mulcahey has been director of sales for Bush since 1951. Prior to that, he was connected with the Cecil Boling Co. of New York for five years, serving in various sales and engineering capacities. A graduate of Webb Institute of Naval Architecture, he is a member of the American Society of Refrigerating Engineers.

Decker was with the heat transfer section of the engineering and design department of the Bethlehem Steel Corp. ship-building division for four years before joining Heat-X as chief engineer in 1950.

Last August he was promoted to sales manager and assistant general manager. He also is a graduate of Webb Institute of Naval Architecture. He is a member of the American Society of Refrigerating Engineers and company representative on several technical committees of the Air-Conditioning and Refrigeration Institute.

Atomic Energy Exhibit at Nashville Electric Show

NASHVILLE, Tenn.—Arrangements for an atomic energy exhibition to coincide with the annual electric show sponsored by the Nashville Electric Service, was announced recently by William D. Hall, NES sales promotion manager.

The opening of the exhibition, sponsored by the Nashville *Tennessean*, local newspaper, will be at 6 p.m. on Tuesday, May 11 so as to coincide with the opening of the electric show.

Safety Latches--

(Concluded from Page 1, Col. 5)

were the Refrigeration Trade Association of America and one manufacturer. The National Safety Council remained neutral.

The bills under consideration are S. 2876 offered by Sen. Mike Mansfield, Montana Democrat, which would require inside latches on any home refrigerator, freezer, icebox, or ice chest of more than 1½-cu. ft. capacity; and S. 2891 by Sen. John Sparkman, Alabama Democrat, which asks inside latches on any home refrigerator.

The Commerce Department opposed the legislation because it would boost the price of refrigerators, it would offer no solution to the problem, the latches would have to be explained to children and there was no guarantee against mechanical failure, and a householder or mover shipping a refrigerator without an inside latch across state lines would be in violation of the law.

Before the hearing, Secretary of Commerce Sinclair Weeks wrote a letter to the sub-committee expressing his opposition.

Perrin in New Plant

BAKERSFIELD, Calif.—Jay Perrin Co., air conditioning and filter service concern, has occupied a new plant at 1515 East Nineteenth St., in the industrial district of East Bakersfield.

Nat Silverstone Dies After Short Illness

SAN FRANCISCO—Nat Silverstone, president of Silver-Stahl Corp., commercial refrigeration distributorship here, and one of the best-known individuals in the industry on the West Coast, died here recently after a short illness.

Silverstone, who has been prominent in the commercial refrigeration industry for many years, was a director of the National Commercial Refrigerator Sales Association.

Last November, he visited the White House in Washington as a delegate to the National Conference of Christians and Jews.

Restaurant Show--

(Concluded from Page 1, Col. 2)

9 a.m. to 6 p.m. on Monday, the first day of the show, and from 8:30 a.m. to 6 p.m. on the following days. Monday has been designated as dealer day and the exposition will be open only to dealers.

The National Restaurant Association, sponsor of the event, will hold its annual convention concurrently with the exposition. General sessions are scheduled for the mornings, and special interest groups will meet in the afternoons.

The association's annual banquet and entertainment will be held Thursday evening, May 13.

Window Unit Ad--

(Concluded from Page 1, Col. 4)

that the ad, "as it appeared, had the capacity to mislead and deceive" and made recommendations for modifications. The bureau said that it had received complaints from competitors and one customer.

Hal Dietz, general manager of the distributorship, replied that there was no "intent on the part of Emerson to mislead or deceive." However, he admitted that a "certain amount of license" had been taken.

He contended that the advertisement referred only to Emerson's "Compact" series of ½ and ¾-ton units and for installation in double-hung windows only. He said that it was not suggested that customers make casement window installations themselves.

He said he thought the advertisement might be modified to say that the air conditioner could be installed in a window with simple tools. He admitted that the window filler could not be trimmed with a screwdriver.

But, he declared that the ad had accomplished its objective of bringing people into dealers' stores and that dealers were selling service and installation along with the unit.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

REDWOODS LIVE 1,000 YEARS

(and more)

...and BUSH Uses All-Heart Redwood

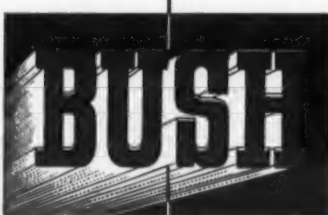
An outstanding example of longevity is the "General Sherman" tree, considered the oldest living object in the world. It was over 2500 years old when America was discovered. Heartwood of these forest giants, which flourish in the area washed by Pacific fogs, is strong, durable, even-grained.

The wetted deck surface of BUSH Propeller-Fan cooling towers is made from all-heart Redwood fill . . . nail-less . . . to assure long life and trouble-free operation. This hard, durable wood needs no artificial treatment to resist fungus deterioration.

- Available in a capacity range from 2 to 15 tons for both residential and commercial air conditioning applications.
- Panels are of galvalume, specially coated for all-weather protection and continued attractive appearance. Panels are first zinc chromate prime coated inside and out . . . then rubber coated inside and coated outside with Vinyl-base paint of high chlorinated rubber content.
- BUSH Propeller-Fan cooling towers are attractive in appearance . . . have clean-lined contours . . . no bulky projections.
- All motors are totally enclosed and have built-in overload protection. Standard motors are 110 volts, single phase, 60 cycle.
- Motors, fans and drives are of sufficient capacity to handle average ductwork for indoor installation if desired.
- Distribution pan, top and fan guard are all easily removable for quick access to all internal parts.



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